

EXHIBIT 1

MATTHEW J. PLATKIN
ATTORNEY GENERAL OF NEW JERSEY
Division of Law
R.J. Hughes Justice Complex
25 Market Street, P.O. Box 093
Trenton, New Jersey 08625-0093
Attorney for Plaintiffs

By: Andrew Reese (024662000)
Monisha A. Kumar (900212012)
Daniel P. Resler (324172020)
Monica E. Finke (332512020)
Deputy Attorneys General
(609) 376-2789
Andrew.Reese@law.njoag.gov
Monisha.Kumar@law.njoag.gov
Daniel.Resler@law.njoag.gov
Monica.Finke@law.njoag.gov

[Additional attorneys listed on signature page]

SUPERIOR COURT OF NEW JERSEY
LAW DIVISION, MERCER COUNTY
DOCKET NO. _____

MATTHEW J. PLATKIN, ATTORNEY
GENERAL OF THE STATE OF NEW
JERSEY; NEW JERSEY DEPARTMENT OF
ENVIRONMENTAL PROTECTION; and
CARI FAIS, ACTING DIRECTOR OF THE
NEW JERSEY DIVISION OF CONSUMER
AFFAIRS,

Plaintiffs,

v.

EXXON MOBIL CORPORATION;
EXXONMOBIL OIL CORPORATION; BP
P.L.C.; BP AMERICA INC.; CHEVRON
CORPORATION; CHEVRON U.S.A. INC.;
CONOCOPHILLIPS; CONOCOPHILLIPS
COMPANY; PHILLIPS 66; PHILLIPS 66
COMPANY; SHELL PLC; SHELL OIL
COMPANY; and AMERICAN PETROLEUM
INSTITUTE,

Defendants.

Civil Action

**COMPLAINT AND JURY
DEMAND**

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Plaintiffs Matthew J. Platkin, Attorney General of the State of New Jersey (the “Attorney General”), the New Jersey Department of Environmental Protection (“NJDEP”), and Cari Fais, Acting Director of the New Jersey Division of Consumer Affairs (the “Acting Director”) (collectively, “Plaintiffs”) file this Complaint against the above-named defendants (“Defendants”), and allege as follows:

I. INTRODUCTION

1. For decades, the fossil fuel industry has misled consumers and the public about climate change. Since at least the 1950s, its own scientists have consistently concluded that fossil fuels produce carbon dioxide and other greenhouse gas pollution that can have catastrophic consequences for the planet and its people. The industry took these internal scientific findings seriously, investing heavily to protect its own assets and infrastructure from rising seas, stronger storms, and other climate change impacts. But rather than warn consumers and the public, fossil fuel companies and their surrogates mounted a disinformation campaign to discredit the scientific consensus on climate change; create doubt in the minds of consumers, the media, teachers, policymakers, and the public about the climate change impacts of burning fossil fuels; and delay the energy economy’s transition to a lower-carbon future. This successful climate deception campaign had the purpose and effect of inflating and sustaining the market for fossil fuels, which—in turn—drove up greenhouse gas emissions, accelerated global warming, and brought about devastating climate change impacts to the State of New Jersey and its Overburdened Communities—sometimes referred to as environmental justice communities—in particular.¹ As a result of the

¹ “‘Overburdened Community’ means any census block group, as determined in accordance with the most recent United States Census, in which: (1) at least 35 percent of the households qualify as low-income households; (2) at least 40 percent of the residents identify as minority or as

fossil fuel industry's lies and deceit, the State has paid billions of dollars to clean up climate change-induced disasters like Superstorm Sandy; to fortify the Jersey Shore from future storms; and to protect its people, businesses, infrastructure, and natural resources from a myriad of other climate change hazards. Despite the clear harm to New Jersey and other communities across the country, Exxon, BP, Chevron, ConocoPhillips, Shell, and the American Petroleum Institute—all Defendants here—continue to peddle climate misinformation and to misdirect the public from their ever-expanding efforts to cement dependency on fossil fuels. It is time to halt this deceptive conduct and place responsibility for remedying its effects on Defendants, where it belongs, rather than the taxpayers of New Jersey.

2. Plaintiffs—the Attorney General, NJDEP, and the Acting Director—now bring this lawsuit for civil monetary penalties and damages to the State of New Jersey (the “State”)² and to its residents, infrastructure, lands, assets, and natural resources caused by Defendants’ decades-long campaign of misleading marketing and deceptive promotion of oil, coal, and natural gas (collectively, “fossil fuel products”).

3. Defendants are major corporate members of the fossil fuel industry, including extractors, producers, refiners, manufacturers, distributors, promoters, marketers, and/or sellers of fossil fuel products. Each Defendant funded, staffed, organized, and otherwise supported efforts

members of a State recognized tribal community; or (3) at least 40 percent of the households have limited English proficiency.” N.J.S.A. 13:1D-158. Residents of all communities should receive fair and equitable treatment in matters affecting their environment, community, homes, and health without regard to race, language, or income. See, e.g., Exec. Order No. 23 (April 20, 2018), 50 N.J.R. 1241(b) (May 21, 2018); Environmental Justice Law, N.J.S.A. 13:1D-157 to -161.

² In this Complaint, the term “State” refers to the State of New Jersey, unless otherwise stated. The term “New Jersey” refers to the area falling within the State’s geographic boundaries, excluding federal land, unless otherwise stated.

to deceive the public and consumers—in and outside of New Jersey—about the role of fossil fuel products in causing the global climate crisis.

4. The rate at which Defendants have extracted and sold fossil fuel products has exploded since the Second World War, as have carbon dioxide (“CO₂”) and other emissions from those products. Fossil fuel emissions—especially CO₂—are far and away the dominant driver of global warming.³ The substantial majority of all anthropogenic greenhouse gas emissions in history have occurred from the 1950s to the present, a period known as the “Great Acceleration.”⁴ About three-quarters of all industrial CO₂ emissions in history have occurred since the 1960s,⁵ and more than half have occurred since the late 1980s.⁶ The annual rate of CO₂ emissions from extraction, production, and consumption of fossil fuels has increased substantially since 1990.⁷

5. Defendants’ awareness of the negative impacts of fossil fuel consumption almost exactly tracks the onset of the Great Acceleration—meaning that Defendants have known for more than 50 years that greenhouse gas pollution from fossil fuel products would have significant adverse impacts on the Earth’s climate and sea levels. Armed with that knowledge, Defendants took steps to protect their own assets from climate harms and risks through immense internal investment in research, infrastructure improvements, and plans to exploit new business

³ See Intergovernmental Panel on Climate Change (“IPCC”), Summary for Policymakers in Climate Change 2021: The Physical Science Basis. Contribution of Working Group I in the Sixth Assessment Report (2021), at 4–9, https://www.ipcc.ch/report/ar6/wg1/downloads/report/IPCC_AR6_WGI_SPM.pdf.

⁴ Will Steffen et al., The Trajectory of the Anthropocene: The Great Acceleration, 2 The Anthropocene Review 81, 81 (2015).

⁵ R.J. Andres et al., A Synthesis of Carbon Dioxide Emissions from Fossil-Fuel Combustion, 9 Biogeosciences 1845, 1851 (2012).

⁶ Ibid.

⁷ Global Carbon Project, Global Carbon Budget 2021, https://www.globalcarbonproject.org/global/images/carbonbudget/Infographic_Emissions2021.pdf.

opportunities in a warming world.

6. But instead of warning the public of—or representing truthfully—the known consequences flowing from the intended and foreseeable use of their products or working to minimize the damage associated with the use and combustion of such products, Defendants concealed and misrepresented the dangers of fossil fuels; disseminated false and misleading information about the existence, causes, and effects of climate change; and aggressively promoted the ever-increasing use of their products at ever-greater volumes. Since at least the late 1980s, Defendants have spent millions of dollars orchestrating a massive disinformation campaign to cast doubt on the science of climate change; to mainstream climate denialist theories that their own scientists had already debunked; and to conceal the role of fossil fuels in driving the climate crisis. More recently, Defendants have pivoted to a new strategy of commercial deception: greenwashing. Today, Defendants misleadingly exaggerate their investments in wind, solar, and other lower carbon energy resources, while failing to disclose that those investments represent a negligible share of their overall business and that they are—in fact—continuing to ramp up fossil fuel production. Defendants also falsely advertise certain fossil fuel products as “green” or “clean,” while concealing the fact that those very same products are leading causes of climate change. Defendants individually and collectively played leadership roles in all of these campaigns, which were intended to and did target the people of New Jersey.

7. All Defendants’ actions in concealing the dangers of, promoting false and misleading information about, and engaging in massive campaigns to promote increasing use of their fossil fuel products have successfully delayed transitioning to a lower carbon footprint, deepened consumers’ dependence on fossil fuel products, and contributed substantially to the

buildup of CO₂ in the atmosphere that drives global warming and its physical, environmental, and socioeconomic consequences, including those affecting the State.

8. Defendants' deceptive and tortious conduct was therefore a substantial factor in bringing about devastating climate change impacts in New Jersey, including: sea-level rise, disruption to the hydrologic cycle,⁸ more frequent and intense extreme precipitation events and associated flooding, more frequent and intense heat waves along with exacerbation of localized "heat island" effects,⁹ more frequent and intense droughts, ocean acidification, degradation of air and water quality, and habitat and species loss. The associated consequences of these physical and environmental changes have compounding effects in New Jersey's Overburdened Communities, who often live in the most environmentally vulnerable areas. Accordingly, Defendants are directly responsible for a substantial portion of the climate crisis-related impacts in New Jersey.

9. All of New Jersey's eastern and southern borders are coastal or tidal, as is much of its western border. Many of its major rivers are tidal estuaries, and New Jersey is the sixth lowest-lying state in the nation, with a mean elevation of approximately 250 feet above sea level.¹⁰ In addition, the coastal communities and tourism sector are an essential pillar of the State's economy. As a result, New Jersey is extremely vulnerable to the effects of sea-level rise and other climate change impacts. In fact, the average sea level in New Jersey is increasing at almost twice the global

⁸ The hydrologic cycle is "the continuous circulation of water in the Earth-Atmosphere system." Nat'l Weather Serv., The Hydrologic Cycle, <https://statics.teams.cdn.office.net/evergreen-assets/safelinks/1/atp-safelinks.html> (last visited Oct. 17, 2022).

⁹ Heat islands are "urbanized areas that experience higher temperatures than outlying areas." See U.S. Env'tl. Prot. Agency, Heat Island Effect, <https://www.epa.gov/heatislands> (last visited Oct. 16, 2022).

¹⁰ World Atlas, US States With the Lowest Average Elevations, <https://www.worldatlas.com/articles/us-states-with-the-lowest-average-elevations.html> (last visited Oct. 14, 2022).

rate and will continue to rise substantially along New Jersey's coast and estuarine rivers, causing flooding, inundation, saltwater intrusion, erosion, tidal wetland losses, and beach loss.¹¹ In addition, extreme weather events—including coastal storms, severe inland flooding from increased precipitation, drought, and heat waves, among others—will become more frequent, longer-lasting, and more severe. The cascading social, economic, and other consequences of those and other environmental changes—all due to anthropogenic global warming—will continue to increase in New Jersey.^{12, 13}

10. The human, natural, and economic devastation wrought by Superstorm Sandy previews the grave climate-related consequences New Jersey faces as a direct result of Defendants' tortious deception. On October 29, 2012, Superstorm Sandy made landfall near Atlantic City, battering coastal communities with hurricane-force winds and inundating them under a fourteen-foot storm surge. In towns located along the Jersey Shore, the storm surge destroyed roads and bridges and swept homes into the ocean. The waves dragged the famous Seaside Heights boardwalk and pier—including its roller coaster track—into the sea. Across the state, Sandy caused 38 deaths, \$29.4 billion in damage, and destroyed more than 70,000 buildings. Superstorm Sandy remains the most destructive storm to ever hit New Jersey. Its immense toll was exacerbated by the effects of climate change, as rising sea levels over the past century allowed the storm surge to

¹¹ See Jennifer Runkle et al., New Jersey State Climate Summary 2022, in NOAA Technical Report NESDIS 150-NJ, 1–5 (2022); Robert Kopp et al., New Jersey's Rising Seas and Changing Coastal Storms: Report of the 2019 Science and Technical Advisory Panel, Rutgers University, 1–53 (2019), https://climatechange.rutgers.edu/images/STAP_FINAL_FINAL_12-4-19.pdf.

¹² See generally Art DeGaetano, Projected Changes in Extreme Rainfall in New Jersey Based on an Ensemble of Downscaled Climate Model Projections (Oct. 2021), <https://www.nj.gov/dep/dsr/publications/projected-changes-rainfall-model.pdf>.

¹³ See generally Art DeGaetano & Harrison Tran, Changes in Hourly and Daily Extreme Rainfall Amounts in NJ Since the Publication of NOAA Atlas 14 Volume (Oct. 2021), <https://www.nj.gov/dep/dsr/publications/nj-atlas-14.pdf>.

reach tens of thousands more New Jerseyans than otherwise would have been affected.



Figure 1: Superstorm Sandy Drags Seaside Heights Boardwalk into the Sea¹⁴

¹⁴ State of New Jersey, Office of the Governor, New Jersey Five Years Post-Sandy: STRONGER Than the Storm 210 (2017), <https://nj.gov/governor/Sandy-Play-Book/#p=219>.

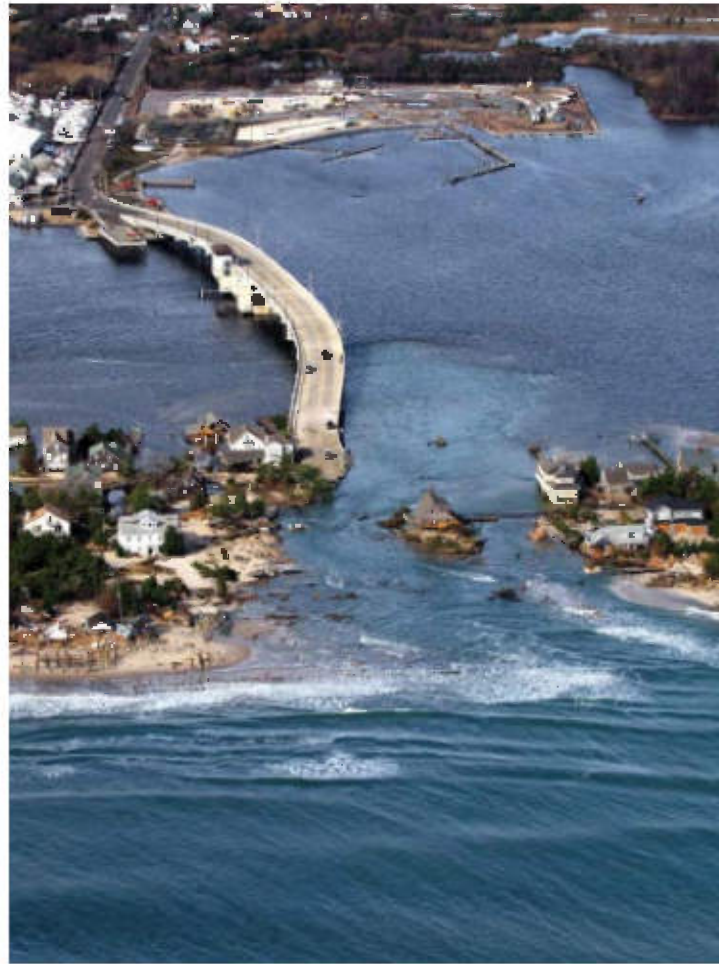


Figure 2: View of New Jersey Coastline on October 30, 2012¹⁵

11. A decade later, Defendants' tortious deception continues to have grave consequences for the State and its residents. In early August 2020, Tropical Storm Isaias left more than 1.4 million homes and businesses in the dark.¹⁶ On September 1, 2021, the remnants of Hurricane Ida swept through New Jersey, leaving behind a trail of death and destruction. At least

¹⁵ Id. at 118.

¹⁶ Anthony G. Attrino, More Than 1.4 Million Power Outages in N.J. From Isaias. Restoration Could Take Days, Officials Say, NJ.com (Aug. 4, 2020), <https://www.nj.com/weather/2020/08/more-than-1-million-power-outages-in-nj-from-isaias-restoration-could-take-days-officials-say.html>.

30 people died statewide—more than in any other state—even though the storm first made landfall 1,300 miles away and was no longer a hurricane by the time it arrived in New Jersey.¹⁷ The storm also caused an estimated \$2.02 billion in damage across New Jersey.¹⁸ In Newark, the State’s most populous city with approximately 280,000 residents, communities suffered over 8 inches of rainfall—more than double the expected monthly rainfall—with 3.65 inches of rain falling in one hour.¹⁹ In early October 2022, the remnants of Hurricane Ian brought heavy rain and flooding to parts of the state,²⁰ in addition to substantial beach erosion and damage to dune ecosystems.²¹ While Superstorm Sandy and subsequent destructive weather events are some of the most dramatic climatic consequences to assail New Jersey, the true and complete extent of the State’s climate-related injuries are far more sweeping.

12. As a direct result of climate crisis-caused environmental changes, the State has suffered and will continue to suffer severe injuries, including but not limited to: inundation and loss of State property; inundation and loss of private property and businesses with associated loss of tax revenue; injury or destruction of State-owned or -operated facilities critical for operations,

¹⁷ Tracey Tully, He Was Swept Down a Sewer Pipe: ‘I Just Let the Water Take Me’, N.Y. Times (Sept. 17, 2021), <https://www.nytimes.com/2021/09/17/nyregion/nj-flooding-ida-damage.html>.

¹⁸ Mike Deak, A Year Since Hurricane Ida: Horror, Heroism, Anxiety Awaiting the Next Catastrophic Storm, My Central Jersey (Sept. 1, 2022), <https://www.mycentraljersey.com/story/news/local/2022/09/01/nj-hurricane-ida-floods-deaths/65418809007/>.

¹⁹ David A. Robinson, Ida Remnants Strike New Jersey, Rutgers University (Oct. 6, 2021), <https://climate.rutgers.edu/stateclim/?section=menu&target=Ida>.

²⁰ Bryanna Gallagher, Remnants of Hurricane Ian Bring Flooding to Jersey Shore, 6ABC (Oct. 3, 2022), <https://6abc.com/hurricane-ian-2022-jersey-shore-weather-forecast-flooding/12289006/>.

²¹ Serena Tara, Hurricane Ian Carved 12-Foot Cliffs Into These New Jersey Beaches, Thrillist (Oct. 5, 2022), <https://www.thrillist.com/news/new-york/hurricane-ian-beach-erosion-new-jersey>; Brianna Kudisch, Ian Remnants Erode N.J. Beaches, Creating Dramatic 12-Foot Cliffs in Some Spots, NJ.com (Oct. 4, 2022), <https://www.nj.com/weather/2022/10/ian-remnants-erode-nj-beaches-creating-dramatic-12-foot-cliffs-in-some-spots-photos.html>.

utility services, and risk management, as well as other assets essential to community health, safety, and well-being; damage or loss of the State's natural resources and their associated ecosystem benefits; increased costs of strengthening and maintaining the resilience of public infrastructure; increased costs of providing government services; increased health care and public health costs; increased planning and preparation costs for community adaptation and resilience to the effects of the climate crisis; displacement, disruption and loss of coastal communities, including loss of life, with associated harm to the State; and decreased tax revenue due to impacts on New Jersey's tourism- and ocean-based economy.²²

13. These consequences will disproportionately afflict New Jersey's Overburdened Communities, as climate change exacerbates existing environmental and public health stressors associated with socioeconomic and racial disparities. Socially vulnerable New Jerseyans—who already suffer from higher rates of adverse health effects like asthma, cancer, and respiratory disease—are often least equipped to adapt to a warming world because their communities lack the infrastructure and resources needed to withstand the threats posed by climate change.

14. Climate change exacerbates the disproportionate risk to which Overburdened Communities are already subject due to heightened existing pollution in their neighborhoods. For instance, the Ironbound neighborhood of Newark risks additional polychlorinated biphenyl

²² See N.J. Dep't of Env'tl. Prot., 2020 New Jersey Scientific Report on Climate Change (June 30, 2020), <https://www.nj.gov/dep/climatechange/docs/nj-scientific-report-2020.pdf>; N.J. Dep't of Env'tl. Prot., Climate Change Impacts on Human Health & Communities: Addendum to the 2020 New Jersey Scientific Report on Climate Change ("New Jersey Human Health Addendum") (Sept. 2022), <https://www.nj.gov/dep/climatechange/docs/nj-scientific-report-human-health-addendum.pdf>.

(“PCB”) and dioxin contamination from a nearby Superfund site when the Passaic River floods, as it did during Hurricane Irene in 2011 and Superstorm Sandy in 2012.²³

15. Atlantic City, which consists entirely of Overburdened Communities,²⁴ now experiences tidal flooding ten times more often than it did in the middle of the last century.²⁵ This climate change-caused flooding is causing home values to fall,²⁶ and Atlantic City is among the 20 cities on the eastern seaboard facing the largest decreases in home values due to sea-level rise.²⁷

16. The consequences of climate change will not be felt only in New Jersey’s coastal communities. As the most densely populated state, with the highest percentage of nondraining surfaces impervious to water, New Jersey is unusually vulnerable to flash floods even in towns

²³ See Ilya Marritz, Sandy Stirs Up Superfund Site in New Jersey, Nat’l Pub. Radio (Nov. 19, 2012), <https://www.npr.org/2012/11/19/165454215/sandy-stirs-up-superfund-site-in-new-jersey>; Impacts of Superstorm Sandy on Ironbound in Newark – A Vulnerable, Environmental Justice Community, Ironbound Community Corporation, . See also N.J. Dep’t of Env’tl. Prot., Overburdened Communities Under the New Jersey Environmental Justice Law in Newark City, Essex County, <https://dep.nj.gov/wp-content/uploads/ej/docs/essex-newark-city-maps-obc.pdf>. Superstorm Sandy resulted in the inundation of the Passaic Valley Sewerage Commission’s 140-acre plant and underground utility tunnels, destroying much critical process equipment in addition to jeopardizing communities. See Passaic Valley Sewerage Comm’n, Five Years After Sandy, PVSC Is the Model of Resiliency and Recovery, <https://www.nj.gov/pvsc/news/sandy/> (last visited Oct. 17, 2022).

²⁴ N.J. Dep’t of Env’tl. Prot., Overburdened Communities Under the New Jersey Environmental Justice Law in Atlantic City, Atlantic County, .

²⁵ Tracey Tully, With 130-Mile Coast, New Jersey Marks a First in Climate Change Fight, N.Y. Times (Jan. 27, 2020), <https://www.nytimes.com/2020/01/27/nyregion/climate-change-nj-environmental-rules.html>.

²⁶ Ian Urbina, Perils of Climate Change Could Swamp Coastal Real Estate, N.Y. Times (Nov. 14, 2016), <https://www.nytimes.com/2016/11/24/science/global-warming-coastal-real-estate.html>.

²⁷ Frank Kummer, Sea Level Rise’s Impact on Property Values Will Be Greatest in N.J. Shore Towns, Study Says, N.H. Union Leader (Mar. 7, 2019), https://www.unionleader.com/news/homes/sea-level-rises-impact-on-property-values-will-be-greatest-in-n-j-shore-towns/article_2b9d707d-0403-57db-8b10-f341eebeb391.html.

with no significant river or ocean frontage.²⁸ In South Plainfield, New Jersey, a city with several Overburdened Community neighborhoods²⁹ and two Superfund sites,³⁰ the remnants of Hurricane Ida in 2021 caused flooding eight feet deep in places and swept two pedestrians through a thirty-six-inch sewer pipe.³¹ Those flash floods will only increase as climate change continues.

17. Defendants’ individual and collective conduct—including, but not limited to, their introduction of fossil fuel products into the stream of commerce while knowing but failing to warn of the threats posed to the world’s climate; their wrongful promotion of fossil fuel products, including the misrepresentation and concealment of known hazards associated with the intended use of those products; and their public deception campaigns designed to obscure the connection between fossil fuel products and global warming—was a substantial factor in bringing about the State’s injuries. In other words, Defendants’ concealment and misrepresentation of fossil fuel products’ known dangers—together with their simultaneous promotion of those products’ unrestrained use—drove fossil fuel consumption and delayed transition to a lower carbon future, resulting in greater greenhouse gas pollution and more dire impacts from the climate crisis in New Jersey and elsewhere.

18. Accordingly, Plaintiffs bring this action against Defendants for failure to warn, negligence, impairment of the public trust, trespass, public nuisance, private nuisance, and violations of the New Jersey Consumer Fraud Act.

²⁸ Tully, He Was Swept Down a Sewer Pipe: ‘I Just Let the Water Take Me.’

²⁹ N.J. Dep’t of Env’tl. Prot., Overburdened Communities Under the New Jersey Environmental Justice Law in South Plainfield Borough, Middlesex County, <https://dep.nj.gov/wp-content/uploads/ej/docs/middlesex-south-plainfield-boro-maps-obc.pdf>.

³⁰ U.S. Env’tl. Prot. Agency, Search for Superfund Sites Where You Live, <https://www.epa.gov/superfund/search-superfund-sites-where-you-live> (last visited Oct. 16, 2022) (select “New Jersey” in dropdown list of states and filter to “Show All entries”).

³¹ See Tully, He Was Swept Down a Sewer Pipe: ‘I Just Let the Water Take Me.’

19. Plaintiffs hereby disclaim injuries arising on federal property and those arising from Defendants' provision of non-commercial, specialized fossil fuel products to the federal government for military and national defense purposes. Plaintiffs seek no recovery or relief attributable to these injuries.

20. Plaintiffs seek to ensure that the parties who have profited from deceiving consumers and the public about climate change bear the costs of that deceptive commercial activity, rather than the State, its taxpayers, its residents, or broader segments of the public.

II. PARTIES

A. Plaintiffs

21. Plaintiff the Attorney General is the chief law enforcement officer and chief legal officer of New Jersey. The Attorney General is authorized to enforce the New Jersey Consumer Fraud Act ("CFA"). N.J.S.A. 52:17B-5.7. The Director of the New Jersey Division of Consumer Affairs is charged with administering the CFA on behalf of the Attorney General. N.J.S.A. 52:17B-120, -124. The Attorney General and the Acting Director bring this action pursuant to their authority under the CFA, specifically N.J.S.A. 56:8-8, -11, -13, and -19.

22. Plaintiff the New Jersey Department of Environmental Protection ("NJDEP") is a principal department within the State's Executive Branch. Led by Commissioner Shawn LaTourette, NJDEP is vested with the authority to conserve natural resources and protect public health and safety, including by seeking injunctive relief and recovery of fines and penalties through legal proceedings. N.J.S.A. 13:1D-9. Under Executive Order No. 89, the Governor of New Jersey has specifically charged NJDEP with directing the development and implementation of statewide climate adaption and resilience measures.³² The State holds in trust all natural resources within its

³² Exec. Order No. 89 (Oct. 29, 2019), 51 N.J.R. 1707(a) (Dec. 2, 2019).

jurisdiction for the benefit of New Jersey's citizens and residents. N.J.S.A. 13:1D-150. The NJDEP is authorized to protect this public trust and to seek compensation for any injury to the natural resources of New Jersey. The State also retains parens patriae authority to protect its "quasi-sovereign" interests in protecting the health and welfare of New Jersey's residents and natural resources. Further, the State possesses fundamental police powers to, among other actions, prevent injuries and pollution of the State's property and waters, to prevent and abate nuisances, and to prevent and abate hazards to public health, safety, welfare, and the environment. NJDEP brings this action in its capacity as trustee of New Jersey's natural resources, and pursuant to its parens patriae, proprietary, and regulatory powers.

B. Defendants

23. When this Complaint references an act or omission of Defendants, unless specifically attributed or otherwise stated, such references should be interpreted to mean that the officers, directors, agents, employees, or representatives of Defendants committed or authorized such an act or omission, or failed to adequately supervise or properly control or direct their employees while engaged in the management, direction, operation or control of the affairs of Defendants, and did so while acting within the scope of their employment or agency.

24. **Exxon Entities: Exxon Mobil Corporation, ExxonMobil Oil Corporation**

a. Defendant **Exxon Mobil Corporation** is a New Jersey corporation headquartered in Irving, Texas. It is a multinational, vertically integrated, energy and chemical company and one of the largest publicly traded international oil and gas companies in the world. Exxon Mobil Corporation was formerly known as, did or does business as, and/or is the successor in liability to ExxonMobil Refining and Supply Company, Exxon Chemical U.S.A., ExxonMobil Chemical Corporation, ExxonMobil Chemical U.S.A., ExxonMobil Refining & Supply

Corporation, Exxon Company, U.S.A., Exxon Corporation, Standard Oil Company (NJ), and Mobil Corporation.

b. Defendant **ExxonMobil Oil Corporation** is a wholly owned subsidiary of Exxon Mobil Corporation, acts on Exxon Mobil Corporation's behalf, and is subject to Exxon Mobil Corporation's control. ExxonMobil Oil Corporation is a New York corporation headquartered in Irving, Texas. ExxonMobil Oil Corporation was formerly known as, did or does business as, and/or is the successor in liability to Mobil Oil Corporation. ExxonMobil Oil Corporation has been registered to do business in New Jersey since 1933.

c. Exxon Mobil Corporation controls and has controlled companywide decisions about the quantity and extent of fossil fuel production and sales, including those of its subsidiaries. Exxon Mobil Corporation's 2021 Form 10-K filed with the United States Securities and Exchange Commission represents that its success, including its "ability to mitigate risk and provide attractive returns to stockholders, depends on [its] ability to successfully manage [its] overall portfolio, including diversification among types and locations of [its] projects."³³ Exxon Mobil Corporation determines whether and to what extent its subsidiaries market, produce, and/or distribute fossil fuel products.

d. Exxon Mobil Corporation controls and has controlled companywide decisions, including those of its subsidiaries, related to marketing, advertising, climate change and greenhouse gas emissions from its fossil fuel products, and communications strategies concerning climate change and the link between fossil fuel use and climate-related impacts on the environment and humans. Exxon Mobil Corporation's Board holds the highest level of direct responsibility for

³³ Exxon Mobil Corp., Form 10-K: Annual Report Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 5 (Feb. 23, 2022), <https://ir.exxonmobil.com/static-files/73aca83c-e65f-42ec-9a13-a7b04a302b7f>.

climate change policy within the company. Exxon Mobil Corporation's Chairman of the Board and Chief Executive Officer, its President, and the other members of its Management Committee are actively engaged in discussions relating to greenhouse gas emissions and the risks of climate change on an ongoing basis. Exxon Mobil Corporation requires its subsidiaries to provide an estimate of greenhouse gas-related emissions costs in their economic projections when seeking funding for capital investments.

e. Defendants Exxon Mobil Corporation, ExxonMobil Oil Corporation, and their predecessors, successors, parents, subsidiaries, affiliates, and divisions, are collectively referred to herein as "Exxon."

f. Plaintiffs' claims against Exxon arise out of the acts and omissions of Exxon in New Jersey and Exxon's actions elsewhere that caused injuries in New Jersey.

g. Exxon consists of numerous divisions and affiliates in all areas of the fossil fuel industry, including exploration for and production of crude oil and natural gas; manufacture of petroleum products; and transportation, promotion, marketing, and sale of crude oil, natural gas, and petroleum products. Exxon is also a major manufacturer and marketer of commodity petrochemical products.

h. Exxon has purposefully directed and continues to purposefully direct its tortious conduct toward New Jersey by intentionally and wrongfully distributing, marketing, advertising, promoting, and supplying its fossil fuel products in New Jersey, with knowledge that those products have caused and will continue to cause climate crisis-related injuries in New Jersey, including the State's injuries. Exxon's statements in and outside of New Jersey made in furtherance of its campaign of deception and denial, and its inveterate failure to warn consumers of global warming-related hazards when it marketed, advertised, and sold its products both in and outside

of New Jersey, were intended to conceal and mislead consumers and the public, including the State and its residents, about the serious adverse consequences from continued use of Exxon's products. That conduct was intended to reach and influence the State, as well as its residents, among others, to continue unabated use of Defendants' fossil fuel products in and outside New Jersey, thereby resulting in the State's injuries.

i. Over the past several decades, Exxon spent millions of dollars on radio, television, and outdoor advertisements in the New Jersey market related to its fossil fuel products. At least as far back as 1972 and as recently as 2020, Exxon also advertised its fossil fuel products in print publications circulated widely to New Jersey consumers, including but not limited to: The Atlantic, The Economist, Fortune Magazine, The New York Times, People, Sports Illustrated, Time Magazine, The Washington Post, and The Wall Street Journal. These advertisements contained no warning commensurate with the risks of their products. Moreover, these advertisements also contained false or misleading statements, misrepresentations, and/or material omissions obfuscating the connection between Exxon's fossil fuel products and climate change, and/or misrepresenting Exxon's products or Exxon itself as environmentally friendly.

j. A significant amount of Exxon's fossil fuel products are or have been transported, traded, distributed, promoted, marketed, manufactured, sold, and/or consumed in New Jersey, from which Exxon derives and has derived substantial revenue. Exxon—directly and through its subsidiaries and/or predecessors-in-interest—supplied substantial quantities of fossil fuel products to New Jersey during the period relevant to this litigation. For instance, as Standard Oil Company of New Jersey, Exxon constructed and operated the Bayway and Bayonne refineries for decades. Currently, Exxon promotes, markets, and sells gasoline and other fossil fuel products to New Jersey consumers through approximately 347 Exxon-branded and Mobil-branded

petroleum service stations in the state.³⁴ During the period relevant to this Complaint, Exxon sold a substantial percentage of all retail gasoline in New Jersey. Exxon also markets and sells petroleum products, including engine lubricants and motor oils sold under the Mobil 1 brand name, to New Jersey customers through local retailers.

k. Exxon historically directed its fossil fuel product advertising, marketing, and promotional campaigns to New Jersey residents, including through maps that identify the locations of its service stations in New Jersey. To this day, Exxon continues to market and advertise its fossil fuel products in New Jersey to New Jersey residents by maintaining an interactive website available to prospective customers that directs New Jersey residents to Exxon's nearby retail service stations and lubricant distributors.³⁵ Further, Exxon promotes its products in New Jersey by regularly updating and actively promoting its mobile device application, "Exxon Mobil Rewards+," throughout the state of New Jersey, which encourages New Jersey users to consume fuel at Exxon stations in New Jersey in exchange for rewards on every fuel purchase.

25. **BP Entities: BP P.L.C., BP America Inc.**

a. Defendant **BP P.L.C.** is a multinational, vertically integrated energy and petrochemical public limited company, registered in England and Wales with its principal place of business in London, England. BP P.L.C. consists of three main operating segments: (1) exploration and production, (2) refining and marketing, and (3) gas power and renewables. BP P.L.C. is the ultimate parent company of numerous subsidiaries, referred to collectively as the "BP Group," which explore for and extract oil and gas worldwide; refine oil into fossil fuel products such as gasoline; and market and sell oil, fuel, other refined petroleum products, and natural gas

³⁴ ExxonMobil, Find a Station, <https://www.exxon.com/en/find-station/new-jersey> (last visited Oct. 17, 2022).

³⁵ Ibid.

worldwide. BP P.L.C.'s subsidiaries explore for oil and natural gas under a wide range of licensing, joint arrangement, and other contractual agreements.

b. BP P.L.C. controls and has controlled companywide decisions about the quantity and extent of fossil fuel production and sales, including those of its subsidiaries. BP P.L.C. is the ultimate decisionmaker on fundamental decisions about the BP Group's core business, i.e., the level of companywide fossil fuels to produce, including production among BP P.L.C.'s subsidiaries. For instance, BP P.L.C. reported that, in 2016–17, it brought online thirteen major exploration and production projects. These contributed to a 12% increase in the BP Group's overall fossil fuel product production. These projects were carried out by BP P.L.C.'s subsidiaries. Based on these projects, BP P.L.C. expects the BP Group to deliver to customers 900,000 barrels of new product per day by 2021. BP P.L.C. further reported that in 2017 it sanctioned three new exploration projects in Trinidad, India, and the Gulf of Mexico.

c. BP P.L.C. controls and has controlled companywide decisions, including those of its subsidiaries, related to marketing, advertising, climate change, and greenhouse gas emissions from its fossil fuel products, as well as communications strategies concerning climate change and the link between fossil fuel use and climate-related impacts on the environment and humans. BP P.L.C. makes fossil fuel production decisions for the entire BP Group based on factors including climate change. BP P.L.C.'s Board of Directors is the highest decisionmaking body within the company, with direct responsibility for the BP Group's climate change policy. BP P.L.C.'s chief executive is responsible for maintaining the BP Group's system of internal control that governs the BP Group's business conduct. BP P.L.C.'s senior leadership directly oversees a carbon steering group, which manages climate-related matters and consists of two committees—both overseen directly by the board—that focus on climate-related investments.

d. Defendant **BP America Inc.** is a wholly owned subsidiary of BP P.L.C. that acts on BP P.L.C.'s behalf and is subject to BP P.L.C.'s control. BP America Inc. is a vertically integrated energy and petrochemical company incorporated in the state of Delaware with its headquarters and principal place of business in Houston, Texas. BP America Inc. is registered to do business in New Jersey. BP America Inc. consists of numerous divisions and affiliates in all aspects of the fossil fuel industry, including exploration for and production of crude oil and natural gas; manufacture of petroleum products; and transportation, marketing, and sale of crude oil, natural gas, and petroleum products. BP America Inc. was formerly known as, did or does business as, and/or is the successor in liability to Amoco Corporation, Amoco Oil Company, ARCO Products Company, Atlantic Richfield New Jersey Corporation, Atlantic Richfield Company (a Delaware Corporation), BP Exploration & Oil, Inc., BP Products North America Inc., BP Amoco Corporation, BP Amoco Plc, BP Oil, Inc., BP Oil Company, Sohio Oil Company, Standard Oil of Ohio (SOHIO), Standard Oil (Indiana), and The Atlantic Richfield Company (a Pennsylvania Corporation) and its division, the Arco Chemical Company.

e. Defendants BP P.L.C. and BP America, Inc., together with their predecessors, successors, parents, subsidiaries, affiliates, and divisions, are collectively referred to herein as "BP."

f. Plaintiffs' claims against BP arise out of the acts and omissions of BP in New Jersey and BP's actions elsewhere that caused injuries in New Jersey.

g. BP has purposefully directed and continues to purposefully direct its tortious conduct toward New Jersey by intentionally and wrongfully distributing, marketing, advertising, promoting, and supplying its fossil fuel products in New Jersey, with knowledge that those products have caused and will continue to cause climate crisis-related injuries in New Jersey,

including the State's injuries. BP's statements in and outside of New Jersey made in furtherance of its campaign of deception and denial—as well as its inveterate failure to warn consumers of global warming-related hazards when it marketed, advertised, and sold its products both in and outside of New Jersey—were intended to conceal and mislead consumers and the public, including the State and its residents, about the serious adverse consequences of continued use of BP's products. That conduct was intended to reach and influence the State, as well as its residents, among others, to continue unabated use of Defendants' fossil fuel products in and outside New Jersey, thereby resulting in the State's injuries.

h. Over the last several decades, BP, and specifically BP P.L.C., spent millions of dollars on radio, television, and outdoor advertisements in the New Jersey market related to its fossil fuel products. At least as far back as 1988 and as recently as 2020, BP also advertised its fossil fuel products in print publications circulated widely to New Jersey consumers, including but not limited to: The Atlantic, Fortune Magazine, The New York Times, Newsweek, Time Magazine, The Washington Post, and The Wall Street Journal. These advertisements contained no warning commensurate with the risks of BP's products. Moreover, these advertisements also contained false or misleading statements, misrepresentations, and/or material omissions obfuscating the connection between BP's fossil fuel products and climate change, and/or misrepresenting BP's products or BP itself as environmentally friendly.

i. A significant amount of BP's fossil fuel products are or have been transported, traded, distributed, marketed, manufactured, promoted, sold, and/or consumed in New Jersey, from which BP derives and has derived substantial revenue. BP advertises that New Jersey

contains the “largest concentration of bp workers . . . anywhere in the eastern United States”³⁶ and that the company owns a 25% interest in New Jersey’s Carteret terminal, a major fossil fuel distribution center that serves the New York Harbor area. BP conducts and controls, either directly or through franchise agreements, retail fossil fuel sales at gas station locations throughout New Jersey, at which it promotes, markets, and advertises its fossil fuel products under its BP and/or Amoco brand names. BP operates over 230 petroleum service stations in New Jersey and advertises that “bp’s Helios logo remains a familiar sight for New Jersey motorists.”³⁷ During the period relevant to this Complaint, BP sold a substantial percentage of all retail gasoline in New Jersey. Additionally, BP markets and sells other products, including engine lubricant and motor oils, to New Jersey consumers under its Castrol brand name. Castrol Industrial North America, Inc., which is owned by BP, is registered to do business in New Jersey.

j. BP historically directed its fossil fuel product advertising, marketing, and promotional campaigns to New Jersey residents, including through maps that identify the locations of its service stations in New Jersey. To this day, BP continues to market and advertise its fossil fuel products in New Jersey to New Jersey residents by maintaining an interactive website available to prospective customers in New Jersey by which it directs New Jersey residents to BP’s nearby retail service stations and/or lubricant distributors.³⁸ Further, BP promotes its products in New Jersey by regularly updating and actively promoting its mobile device application, “BPme Rewards,” throughout the state of New Jersey, encouraging New Jersey users to consume fuel at its stations in New Jersey in exchange for rewards and/or savings on every fuel purchase.

³⁶ BP, Where We Operate: New Jersey, https://www.bp.com/en_us/united-states/home/where-we-operate/new-jersey.html (last visited Oct. 14, 2022).

³⁷ Ibid.

³⁸ BP, Find a Gas Station, https://www.bp.com/en_us/united-states/home/find-a-gas-station.html (last visited Oct. 14, 2022).

26. **Chevron Entities: Chevron Corporation, Chevron USA, Inc.**

a. Defendant **Chevron Corporation** is a multinational, vertically integrated energy and chemicals company incorporated in Delaware, with its global headquarters and principal place of business in San Ramon, California. Chevron Corporation is registered to do business in New Jersey.

b. Chevron Corporation operates through a web of United States and international subsidiaries at all levels of the fossil fuel supply chain. Chevron Corporation's and its subsidiaries' operations consist of: (1) exploring for, developing, and producing crude oil and natural gas; (2) processing, liquefying, transporting, and regassing associated with liquefied natural gas; (3) transporting crude oil by major international oil export pipelines; (4) transporting, storing, and marketing natural gas; (5) refining crude oil into petroleum products; (6) marketing crude oil and refined products; (7) transporting crude oil and refined products by pipeline, marine vessel, motor equipment, and rail car; (8) conducting basic and applied research in multiple scientific fields including chemistry, geology, and engineering; and (9) manufacturing and marketing commodity petrochemicals, plastics for industrial uses, and fuel and lubricant additives.

c. Chevron Corporation controls and has controlled companywide decisions about the quantity and extent of fossil fuel production and sales, including those of its subsidiaries. Chevron Corporation determines whether and to what extent its holdings market, produce, and/or distribute fossil fuel products.

d. Chevron Corporation controls and has controlled companywide decisions, including those of its subsidiaries, related to marketing, advertising, climate change, and greenhouse gas emissions from its fossil fuel products, and communications strategies concerning

climate change and the link between fossil fuel use and climate-related impacts on the environment and communities.

e. Defendant **Chevron U.S.A. Inc.** is a Pennsylvania corporation with its principal place of business located in San Ramon, California. Chevron U.S.A. Inc. is registered to do business in New Jersey. Chevron U.S.A. Inc. is a wholly owned subsidiary of Chevron Corporation that acts on Chevron Corporation's behalf and is subject to Chevron Corporation's control. Chevron U.S.A. Inc. was formerly known as, did or does business as, and/or is the successor in liability to Gulf Oil Corporation, Gulf Oil Corporation of Pennsylvania, Chevron Products Company, and Chevron Chemical Company.

f. Defendants Chevron Corporation and Chevron U.S.A. Inc., together with their predecessors, successors, parents, subsidiaries, affiliates, and divisions, are collectively referred to herein as "Chevron."

g. Plaintiffs' claims against Chevron arise out of the acts and omissions of Chevron in New Jersey and Chevron's actions elsewhere that caused the injuries in New Jersey.

h. Chevron has purposefully directed and continues to purposefully direct its tortious conduct toward New Jersey by intentionally and wrongfully distributing, marketing, advertising, promoting, and supplying its products in New Jersey, with knowledge that those products have caused and will continue to cause climate crisis-related injuries in New Jersey, including the State's injuries. Chevron's statements in and outside of New Jersey made in furtherance of its campaign of deception and denial—as well as its chronic failure to warn consumers of global warming-related hazards when it marketed, advertised, and sold its products both in and outside of New Jersey—were intended to conceal and mislead consumers and the public, including the State and its residents, about the serious adverse consequences from

continued use of Chevron's products. That conduct was intended to reach and influence the State, as well as its residents, among others, to continue unabated use of Defendants' fossil fuel products in and outside New Jersey, resulting in the State's injuries.

i. Over the last several decades, Chevron spent millions of dollars on radio, television, and outdoor advertisements in the New Jersey market related to its fossil fuel products. At least as far back as 1971 and as recently as 2020, Chevron also advertised in print publications circulated widely to New Jersey consumers, including but not limited to: The Atlantic, Fortune Magazine, The New York Times, Newsweek, People, Sports Illustrated, Time Magazine, and The Washington Post. These advertisements contained no warning commensurate with the risks of Chevron's products. Moreover, these advertisements also contained false or misleading statements, misrepresentations, and/or material omissions obfuscating the connection between Chevron's fossil fuel products and climate change, and/or misrepresenting Chevron's products or Chevron itself as environmentally friendly.

j. A significant amount of Chevron's fossil fuel products have been transported, traded, distributed, promoted, marketed, manufactured, sold, and/or consumed in New Jersey, from which Chevron has derived substantial revenue. Chevron acquired the Perth Amboy Refinery in New Jersey in 1945 and operated it to refine petroleum into products such as gasoline, heating oil, and asphalt until 2012. Chevron has conducted and controlled, either directly or through franchise agreements, retail fossil fuel sales at its branded gas station locations throughout New Jersey, at which it has engaged in the promotion, marketing, and advertisement of its fossil fuel products under its various brand names, including Chevron, Texaco, and other brand names, at times relevant to this complaint. Chevron historically directed its fossil fuel product advertising, marketing, and promotional campaigns to New Jersey residents, including through maps that

identified the locations of its service stations in New Jersey. To this day, Chevron markets and sells engine lubricants and motor oils to New Jersey customers under its Delo, IsoClean, Techron, and Havoline brand names at retail outlets.³⁹ Until 2010, Chevron offered a proprietary credit card known as the “Chevron Techron Advantage Card,” which allowed consumers in New Jersey to pay for gasoline and other products at Chevron-branded service stations, and which encouraged New Jersey consumers to use Chevron-branded service stations by offering various rewards, including discounts on gasoline purchases at Chevron service stations and cash rebates.

27. **ConocoPhillips Entities: ConocoPhillips, ConocoPhillips Company, Phillips 66, Phillips 66 Company**

a. Defendant **ConocoPhillips** is a multinational energy company incorporated in Delaware and with its principal place of business in Houston, Texas. ConocoPhillips consists of numerous divisions, subsidiaries, and affiliates that execute ConocoPhillips’s fundamental decisions related to all aspects of the fossil fuel industry, including exploration, extraction, production, manufacture, transport, and marketing.

b. ConocoPhillips controls and has controlled companywide decisions about the quantity and extent of fossil fuel production and sales, including those of its subsidiaries. ConocoPhillips determines whether and to what extent its holdings market, produce, and/or distribute fossil fuel products. ConocoPhillips’s most recent annual report subsumes the operations

³⁹ Chevron Lubricants, Where to Buy, https://www.chevronlubricants.com/en_us/home/where-to-buy/find-a-distributor.html?gclid=Cj0KCQjw1vSZBhDuARIsAKZlijQOwvNu-O_1u7qmUkkvXNnEyLThzaA_gtG_gQHh0nsXH0y7JRPNGHcaAkMrEALw_wcB&gclsrc=aw.ds (last visited Oct. 14, 2022); Chevron Lubricants, Find Your Nearest Oil Change Station, https://www.chevronlubricants.com/en_us/home/where-to-buy/find-an-installer.html (last visited Oct. 14, 2022).

of the entire ConocoPhillips group of subsidiaries under its name. Therein, ConocoPhillips represents that its value—for which ConocoPhillips maintains ultimate responsibility—is a function of its decisions to direct subsidiaries to explore for and produce fossil fuels: “Unless we successfully add to our existing proved reserves, our future crude oil, bitumen, natural gas and natural gas liquids production will decline, resulting in an adverse impact to our business.”⁴⁰ ConocoPhillips optimizes the ConocoPhillips group’s oil and gas portfolio to fit ConocoPhillips’s strategic plan. For example, in November 2016, ConocoPhillips announced a plan to generate \$5 billion to \$8 billion of proceeds over two years by optimizing its business portfolio, including its fossil fuel product business, to focus on low cost-of-supply fossil fuel production projects that strategically fit its development plans.

c. ConocoPhillips controls and has controlled companywide decisions, including those of its subsidiaries, related to marketing, advertising, climate change and greenhouse gas emissions from its fossil fuel products, and communications strategies concerning climate change and the link between fossil fuel use and climate-related impacts on the environment and communities. For instance, ConocoPhillips’s board has the highest level of direct responsibility for climate change policy within the company. ConocoPhillips has developed and purportedly implements a corporate Climate Change Action Plan to govern climate change decisionmaking across all entities in the ConocoPhillips group.

d. Defendant **ConocoPhillips Company** is a wholly owned subsidiary of ConocoPhillips that acts on ConocoPhillips’s behalf and is subject to ConocoPhillips’s control.

⁴⁰ ConocoPhillips, Form 10-K: Annual Report Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 23 (Dec. 31, 2019).

ConocoPhillips Company is incorporated in Delaware and has its principal office in Bartlesville, Oklahoma. ConocoPhillips Company is registered to do business in New Jersey.

e. Defendant **Phillips 66** is a multinational energy and petrochemical company incorporated in Delaware and with its principal place of business in Houston, Texas. It encompasses downstream fossil fuel processing, refining, transport, and marketing segments that were formerly owned and/or controlled by ConocoPhillips.

f. Defendant **Phillips 66 Company** is a wholly owned subsidiary of Phillips 66 that acts on Phillips 66's behalf and is subject to Phillips 66's control. Phillips 66 Company is incorporated in Delaware and has its principal office in Houston, Texas. Phillips 66 Company is registered to do business in New Jersey. Phillips 66 Company was formerly known as, did or does business as, and/or is the successor in liability to Phillips Petroleum Company, Conoco, Inc., Tosco Corporation, and Tosco Refining Co.

g. Defendants ConocoPhillips, ConocoPhillips Company, Phillips 66, and Phillips 66 Company, as well as their predecessors, successors, parents, subsidiaries, affiliates, and divisions, are collectively referred to herein as "ConocoPhillips."

h. ConocoPhillips has purposefully directed and continues to purposefully direct its tortious conduct toward New Jersey by intentionally and wrongfully distributing, marketing, advertising, promoting, and supplying its fossil fuel products in New Jersey, with knowledge that those products have caused and will continue to cause climate crisis-related injuries in New Jersey, including the State's injuries. ConocoPhillips's statements in and outside of New Jersey made in furtherance of its campaign of deception and denial—as well as its chronic failure to warn consumers of global warming-related hazards when it marketed, advertised, and sold its products—were intended to conceal and mislead consumers and the public about the

serious adverse consequences from continued use of ConocoPhillips's products. That conduct was intended to reach and influence the State, as well as its residents, among others, to continue unabated use of Defendants' fossil fuel products, resulting in the State's injuries.

i. ConocoPhillips transacts and has transacted substantial fossil fuel-related business in New Jersey. In 2011, it acquired the Bayway Refinery, which refines more than 250,000 barrels of fossil fuel products per day, and transferred the refinery to its successor Phillips 66 in 2012. ConocoPhillips and its affiliates have continued to expand Bayway, which remains one of the largest refineries in operation on the East Coast. ConocoPhillips markets and sells, and has marketed and sold, a significant quantity of gasoline and other fossil fuel products to New Jersey consumers. Currently, ConocoPhillips operates more than 140 Conoco-branded and Phillips 66-branded petroleum service stations throughout New Jersey. ConocoPhillips also markets and sells lubricants to New Jersey consumers under its Phillips 66 brand, and motor oils to New Jersey consumers under its Kendall Motor Oil brand.

28. **Shell Entities: Shell plc, Shell Oil Company**

a. Defendant **Shell plc** (formerly Royal Dutch Shell PLC) is a vertically integrated, multinational energy and petrochemical company. Shell plc is incorporated in England and Wales, with its headquarters and principal place of business in The Hague, Netherlands. Shell plc is the ultimate parent company of numerous divisions, subsidiaries, and affiliates, referred to collectively as the "Shell Group," that engage in all aspects of the fossil fuel industry including exploration, development, extraction, manufacturing and energy production, transport, trading, marketing, and sales.

b. Shell plc controls and has controlled companywide decisions about the quantity and extent of fossil fuel production and sales, including those of its subsidiaries. Shell

plc's Board of Directors determines whether and to what extent Shell subsidiary holdings around the globe produce Shell-branded fossil fuel products. For instance, in 2015, a Shell plc subsidiary employee admitted in a deposition that its Board of Directors made the decision about whether to drill a particular oil deposit off the coast of Alaska.

c. Shell plc controls and has controlled companywide decisions, including those of its subsidiaries, related to marketing, advertising, climate change and greenhouse gas emissions from its fossil fuel products, and communications strategies concerning climate change and the link between fossil fuel use and climate-related impacts on the environment and communities. Overall accountability for climate change within the Shell group of companies lies with Shell plc's Chief Executive Officer and Executive Committee. For instance, at least as early as 1988, Royal Dutch Shell PLC, through its subsidiaries, was researching companywide CO₂ emissions and concluded that the Shell group of companies accounted for "4% of the CO₂ emitted worldwide from combustion," and that climatic changes could compel the Shell group, as controlled by Royal Dutch Shell PLC, to "examine the possibilities of expanding and contracting [its] business accordingly."⁴¹ Royal Dutch Shell PLC's CEO has stated that Royal Dutch Shell PLC would reduce the carbon footprint of its products, including those of its subsidiaries "by reducing the net carbon footprint of the full range of Shell emissions, from our operations and from the consumption of our products."⁴² Additionally, in November 2017, Royal Dutch Shell PLC

⁴¹ Health, Safety, & Env't Div., Shell Internationale Petroleum Maatschappij B.B., The Greenhouse Effect (Report Series HSE 88-001) 29 (1988).

⁴² Royal Dutch Shell PLC, Management Day 2017: Shell Updates Company Strategy and Financial Outlook, and Outlines Net Carbon Footprint Ambition, Shell Global Company Website (Nov. 28, 2017), <https://www.shell.com/media/news-and-media-releases/2017/management-day-2017-shell-updates-company-strategy.html>.

announced it would reduce the carbon footprint of “its energy products” by “around” half by 2050.⁴³ Royal Dutch Shell PLC’s effort is inclusive of all fossil fuel products produced under the Shell brand, including those of its subsidiaries.

d. Defendant **Shell Oil Company** is a wholly owned subsidiary of Shell plc that acts on Shell plc’s behalf and is subject to Shell plc’s control. Shell Oil Company is incorporated in Delaware and with its principal place of business in Houston, Texas. Shell Oil Company was formerly known as, did or does business as, and/or is the successor in liability to Deer Park Refining LP, Shell Oil, Shell Oil Products, Shell Chemical, Shell Trading US, Shell Trading (US) Company, Shell Energy Services, Texaco Inc., The Pennzoil Company, Shell Oil Products Company LLC, Shell Oil Products Company, Star Enterprise, LLC, and Pennzoil-Quaker State Company.

e. Defendants Shell plc, Shell Oil Company, and their predecessors, successors, parents, subsidiaries, affiliates, and divisions are collectively referred to herein as “Shell.”

f. Plaintiffs’ claims against Shell arise out of the acts and omissions of Shell in New Jersey and Shell’s actions elsewhere that caused the injuries in New Jersey.

g. Shell has purposefully directed and continues to purposefully direct its tortious conduct toward New Jersey by intentionally and wrongfully distributing, marketing, advertising, promoting, and supplying its products in New Jersey, with knowledge that those products have caused and will continue to cause climate crisis-related injuries in New Jersey, including the State’s injuries. Shell’s statements in and outside of New Jersey made in furtherance of its campaign of deception and denial—as well as its chronic failure to warn consumers of global

⁴³ Ibid.

warming-related hazards when it marketed, advertised, and sold its products both in and outside of New Jersey—were intended to conceal and mislead consumers and the public, including the State and its residents, about the serious adverse consequences from continued use of Shell’s products. That conduct was intended to reach and influence the State, as well as its residents, among others, to continue unabated use of Defendants’ fossil fuel products in and outside New Jersey, resulting in the State’s injuries.

h. Over the last several decades, Shell spent millions of dollars on radio, television, and outdoor advertisements in the New Jersey market related to its fossil fuel products. At least as far back as 1970 and as recently as 2020, Shell also advertised in print publications circulated widely to New Jersey consumers, including but not limited to: The Atlantic, Life Magazine, The New York Times, People, Sports Illustrated, Time Magazine, The Washington Post, and The Wall Street Journal. These advertisements contained no warning commensurate with the risks of Shell’s products. Moreover, these advertisements also contained false or misleading statements, misrepresentations, and/or material omissions obfuscating the connection between Shell’s fossil fuel products and climate change, and/or misrepresenting Shell’s products or Shell itself as environmentally friendly.

i. A significant amount of Shell’s fossil fuel products are or have been transported, traded, distributed, promoted, marketed, manufactured, sold, and/or consumed in New Jersey, from which Shell derives and has derived substantial revenue. Shell conducts and controls, either directly or through franchise agreements, retail fossil fuel sales at gas station locations throughout New Jersey, at which it promotes, advertises, and sells its fossil fuel products under its Shell brand name. Shell operates approximately 200 Shell-branded petroleum service stations in New Jersey. During the period relevant to this Complaint, Shell sold a substantial percentage of

all retail gasoline sold in New Jersey. Shell also supplies, markets, and promotes its Pennzoil line of lubricants at retail and service stations throughout New Jersey, including at Target and Walmart.

j. Shell historically directed its fossil fuel product advertising, marketing, and promotional campaigns to New Jersey, including through maps that identified the locations of its service stations in New Jersey. Shell markets and advertises its fossil fuel products in New Jersey to New Jersey residents by maintaining an interactive website available to prospective customers by which it directs New Jersey residents to Shell's nearby retail service stations. Shell offers a proprietary credit card known as the "Shell Fuel Rewards Card," which allows consumers in New Jersey to pay for gasoline and other products at Shell-branded service stations, and which encourages consumers to use Shell-branded gas stations by offering various rewards, including discounts on gasoline purchases. Shell further maintains a smartphone application known as the "Shell US App" that offers New Jersey consumers a cashless payment method for gasoline and other products at Shell-branded service stations. New Jersey consumers utilize the payment method by providing their credit card information through the application. New Jersey consumers can also receive rewards, including discounts on gasoline purchases, by registering their personal identifying information in the Shell US App and using the application to identify and activate gas pumps at Shell service stations during a purchase.

29. The Exxon, BP, Chevron, ConocoPhillips, and Shell entities set forth above are collectively referred to as "Fossil Fuel Defendants."

30. **American Petroleum Institute**

a. Defendant American Petroleum Institute ("API") is a nonprofit corporation based in the District of Columbia and registered to do business in New Jersey. API was created in 1919 to represent the American petroleum industry as a whole. With more than 600 members, API

is the country's largest oil trade association. API's purpose is to advance its individual members' collective business interests, which includes increasing consumer consumption of oil and gas to the Fossil Fuel Defendants' financial profit. Among other functions, API also coordinates members of the petroleum industry, gathers information of interest to the industry, and disseminates that information to its members.

b. Acting on behalf of and under the supervision and control of the Fossil Fuel Defendants, API has participated in and led several coalitions, front groups, and organizations that have promoted disinformation about the climate impacts of fossil fuel products to consumers—including, but not limited to, the Global Climate Coalition, Partnership for a Better Energy Future, Coalition for American Jobs, Alliance for Energy and Economic Growth, and Alliance for Climate Strategies. These front groups were formed to provide climate disinformation and advocacy from a purportedly objective source, when, in fact, they were financed and controlled by Fossil Fuel Defendants. Fossil Fuel Defendants have benefited from the spread of this disinformation because, among other things, it has ensured a thriving consumer market for oil and gas, resulting in substantial profits for Fossil Fuel Defendants.

c. API's stated mission includes "influenc[ing] public policy in support of a strong, viable U.S. oil and natural gas industry,"⁴⁴ which includes increasing consumers' consumption of oil and gas to Fossil Fuel Defendants' financial benefit. In effect, API acts and has acted as a marketing arm for its member companies, including Fossil Fuel Defendants. Over the last several decades, API spent millions of dollars on television, newspaper, radio, and internet advertisements in the New Jersey market.

⁴⁴ American Petroleum Institute, About API, <https://www.api.org/about> (last visited Oct. 17, 2022).

d. Member companies participate in API strategy, governance, and operation through membership dues and by contributing company officers and other personnel to API boards, committees, and task forces. Fossil Fuel Defendants have collectively steered the policies and trade practices of API through membership, Executive Committee roles, and/or budgetary funding of API. Fossil Fuel Defendants used their control over and involvement in API to further their goal of influencing consumer demand for their fossil fuel products through a long-term advertising and communications campaign centered on climate change denialism. Fossil Fuel Defendants directly controlled, supervised, and participated in API's misleading messaging regarding climate change.

e. In addition to national promotional campaigns circulated in New Jersey, API has also directly targeted New Jersey consumers by creating and disseminating misleading advertisements designed to promote consumption of fossil fuel products in the State. In 2017, for example, API released a thirty-second advertisement called "Natural Gas Works for New Jersey," which misleadingly described natural gas as "clean energy."⁴⁵ In 2016, API launched a campaign in New Jersey seeking to turn public opinion against stricter standards for ethanol content in gasoline. The campaign claimed stricter standards would "hurt consumers and threaten to reverse America's energy renaissance."⁴⁶

f. All Fossil Fuel Defendants and/or their predecessors-in-interest have been core API members at times relevant to this litigation. All Fossil Fuel Defendants are currently members of API. Executives from Exxon, Shell, BP, Chevron, and ConocoPhillips have served on

⁴⁵ American Petroleum Institute, Natural Gas Works for New Jersey, <https://www.youtube.com/watch?v=rb9jQiGdLQ> (Sept. 19, 2017).

⁴⁶ Reid Porter, API Launches New RFS Advocacy Campaign in New Jersey Focused on Consumers, American Petroleum Institute (Aug. 9, 2016), <https://www.api.org/news-policy-and-issues/news/2016/08/09/api-launches-new-rfs-advocacy-campaign-f>.

the API Executive Committee and/or as API Chairman, which is akin to serving as a corporate officer. For example, Exxon's CEO served on API's Executive Committee for 15 of 25 years between 1991 and 2016 (1991, 1996–97, 2001, 2005–2016). BP's CEO served as API's Chairman in 1988, 1989, and 1998. Chevron's CEO served as API Chairman in 1994, 1995, 2003, and 2012. Shell's President served on API's Executive Committee from 2005–06. ConocoPhillips Chairman and CEO Ryan Lance was Board President from 2016 to 2018, and Exxon President and CEO Darren Woods was Board President from 2018 to 2020. In 2020, API elected Phillips 66 Chairman and CEO Greg Garland to serve a two-year term as the Board President. Executives from ConocoPhillips also served as members of API's Board of Directors at various times.

g. Relevant information was shared among API and Fossil Fuel Defendants and their predecessors-in-interest through (1) API distributing information it held to its members and/or (2) participation of officers and other personnel from Fossil Fuel Defendants and their predecessors-in-interest on API boards, committees, and task forces.

C. Relevant Non-Parties: Defendants' Agents and Front Groups

31. As detailed below, each Fossil Fuel Defendant had actual knowledge that its fossil fuel products were hazardous. Fossil Fuel Defendants obtained knowledge of the hazards of their products independently and through their membership and involvement in trade associations such as API.

32. Fossil Fuel Defendants employed and financed several industry associations, such as API, and industry-created front groups to serve their mission of flooding the markets with climate change disinformation and denialism. These organizations, acting on behalf of and under the supervision and control of Fossil Fuel Defendants, assisted the deception campaign by implementing public advertising and outreach campaigns to discredit climate science, funding scientists to cast doubt upon climate science, and denying the human connection to climate change. In sum, Fossil Fuel Defendants, through their front groups, engaged in a significant marketing

campaign that misrepresented and concealed the dangers of their fossil fuel products with the aim of protecting or enhancing Fossil Fuel Defendants' sales to consumers, including consumers in New Jersey. Defendants actively supervised, facilitated, consented to, and/or directly participated in the misleading messaging of these front groups, from which Fossil Fuel Defendants profited significantly, including in the form of increased sales in New Jersey.

33. **The Information Council for the Environment ("ICE")** was formed by coal companies and their allies, including Western Fuels Association and the National Coal Association. Associated companies included Pittsburg and Midway Coal Mining (Chevron).

34. **The Global Climate Coalition ("GCC")** was an industry group formed to preserve and expand consumer demand for fossil fuels, including by publicly casting doubt on climate science and opposing greenhouse gas emission reduction initiatives. GCC was founded in 1989 shortly after the first meeting of the Intergovernmental Panel on Climate Change ("IPCC"), the United Nations body for assessing the science related to climate change. GCC disbanded in or around 2001. Founding members included API, PMAA, and the National Coal Association, a predecessor of the National Mining Association.⁴⁷ Over the course of its existence, GCC corporate members included Amoco (BP), API, Chevron, Exxon, Shell Oil, Texaco (Chevron), and Phillips Petroleum (ConocoPhillips). Over its existence, other members and funders included ARCO (BP), and the Western Fuels Association.

III. JURISDICTION AND VENUE

35. Jurisdiction of this Court is proper under Article VI, Section III, Paragraph 2, of the New Jersey Constitution; New Jersey Court Rule 4:4-4; and New Jersey Court Rule 4:3-1(a)(5).

⁴⁷ ClimateFiles, Global Climate Coalition Membership (Nov. 16, 1989), <http://www.climatefiles.com/denial-groups/global-climate-coalition-collection/1989-membership>.

36. This Court has personal jurisdiction over each Defendant pursuant to N.J.S.A. 14A:1-1 et seq., and R. 4:4-4(a)(6), and because each Defendant is, or was during the relevant time, incorporated in New Jersey and/or licensed to do business in New Jersey; maintained or maintains their principal place of business in New Jersey; is transacting or has transacted substantial business in New Jersey or is otherwise “at home” in New Jersey; is contracting or has contracted to supply services or things in New Jersey; has or does derive substantial revenue from New Jersey or engages in a persistent course of conduct in New Jersey; had or has interests in, used or uses, or possessed or possesses real property in New Jersey; and/or caused tortious injury in New Jersey and has intentionally engaged in conduct aimed at New Jersey, which has caused harm they knew was likely to be incurred in New Jersey. Each Defendant has sufficient contacts with New Jersey to give rise to the current action, has continuous and systematic contacts with New Jersey, and/or has consented either explicitly or implicitly to the jurisdiction of this Court.

37. Additionally, jurisdiction is proper over each non-resident defendant:

a. With respect to its subsidiaries, each non-resident defendant parent⁴⁸ controls and has controlled decisions about the quantity and extent of its fossil fuel production and sales; determines whether and to what extent to market, produce, and/or distribute its fossil fuel products; and controls and has controlled decisions related to its marketing and advertising, and specifically communications strategies concerning climate change and the link between fossil fuel use and impacts on the environment. Each non-resident defendant parent has the power to direct and control the resident subsidiaries named here. Thus, the subsidiaries are agents of the parents. As agents, the subsidiaries of each non-resident defendant conducted activities in New Jersey at the direction of their parent companies and for the parent companies’

⁴⁸ Except Chevron USA, Inc., which is itself a subsidiary.

benefit. Specifically, the subsidiaries furthered the parents' campaign of deception and denial through misrepresentations, omissions, and failures to warn, which resulted in climate injuries in the State and increased sales to the parents. Therefore, the subsidiaries' jurisdictional activities are properly attributed to the parents and serve as a basis to assert jurisdiction over the non-resident defendant parents.

b. Through their various agreements with dealers, franchises, or otherwise, Fossil Fuel Defendants direct and control the branding, marketing, sales, promotions, image development, signage, and advertising of their branded fossil fuels at their respectively branded gas stations in New Jersey, including point-of-sale advertising and marketing. Defendants dictate which grades and formulations of their gasoline may be sold at their respectively branded stations.

c. All Fossil Fuel Defendants—by and through API and other organizations like ICE, GCC, and International Petroleum Industry Environmental Conservation Association (“IPIECA”)—conspired to conceal and misrepresent the known dangers of burning fossil fuels, to knowingly withhold material information regarding the consequences of using fossil fuel products, to spread knowingly false and misleading information to the public regarding the weight of climate science research, and to engage in massive campaigns to promote heavy use of their fossil fuel products, which they knew would result in injuries to the State. Through their own actions and through their membership and participation in climate denialist front groups, API and each Fossil Fuel Defendant was and is a member of that conspiracy. Defendants committed substantial acts to further the conspiracy in New Jersey by making misrepresentations and misleading omissions to New Jersey consumers about the existence, causes, and effects of global warming, as well as by failing to warn them about the disastrous impacts of fossil fuel use. A substantial effect of the conspiracy has also and will also occur in New Jersey, as the State has suffered and will suffer

injuries from Defendants' wrongful conduct, including but not limited to: sea-level rise, flooding, erosion, loss of wetlands and beaches, ocean acidification, and other social and economic consequences of these environmental changes. Defendants knew or should have known—based on information passed to them from their internal research divisions, affiliates, trade associations, and industry groups—that their actions in New Jersey and elsewhere would result in these injuries in and to New Jersey. Finally, the climate effects described herein are direct and foreseeable results of Defendants' conduct in furtherance of the conspiracy.

38. Venue in this Court is proper, pursuant to R. 4:3-2, because Plaintiffs' claims arose, in part, in Mercer County, and Defendants conduct business there.

IV. FACTUAL BACKGROUND

A. Defendants Are Responsible for Causing and Accelerating Climate Change.

39. Human-caused warming of the Earth is unequivocal. The atmosphere and oceans are warming, sea level is rising, snow and ice cover is diminishing, oceans are acidifying, and hydrologic systems have been altered, among other environmental changes.⁴⁹

40. The mechanism by which human activity causes global warming and climate disruption is well established: ocean and atmospheric warming is overwhelmingly caused by anthropogenic greenhouse gas emissions.

41. Greenhouse gases are largely byproducts of humans combusting fossil fuels to produce energy and using fossil fuels to create petrochemical products. While there are several greenhouse gases contributing to climate change, CO₂ is the primary greenhouse gas emitted from human activities.

⁴⁹ IPCC, Global Carbon and Other Biogeochemical Cycles and Feedbacks, in Climate Change 2021: The Physical Science Basis. Contribution of Working Group I in the Sixth Assessment Report 688 (2021).

42. Prior to World War II, most anthropogenic CO₂ emissions were caused by land-use practices, such as forestry and agriculture, which altered the ability of the land and global biosphere to absorb CO₂ from the atmosphere; the impacts of such activities on Earth's climate were relatively minor.

43. Since that time, however, both the annual rate and total volume of anthropogenic CO₂ emissions have increased enormously following the advent of major uses of oil, gas, and coal.

44. The graph below illustrates that fossil fuel emissions are the dominant source of increases in atmospheric CO₂ since the mid-twentieth century:

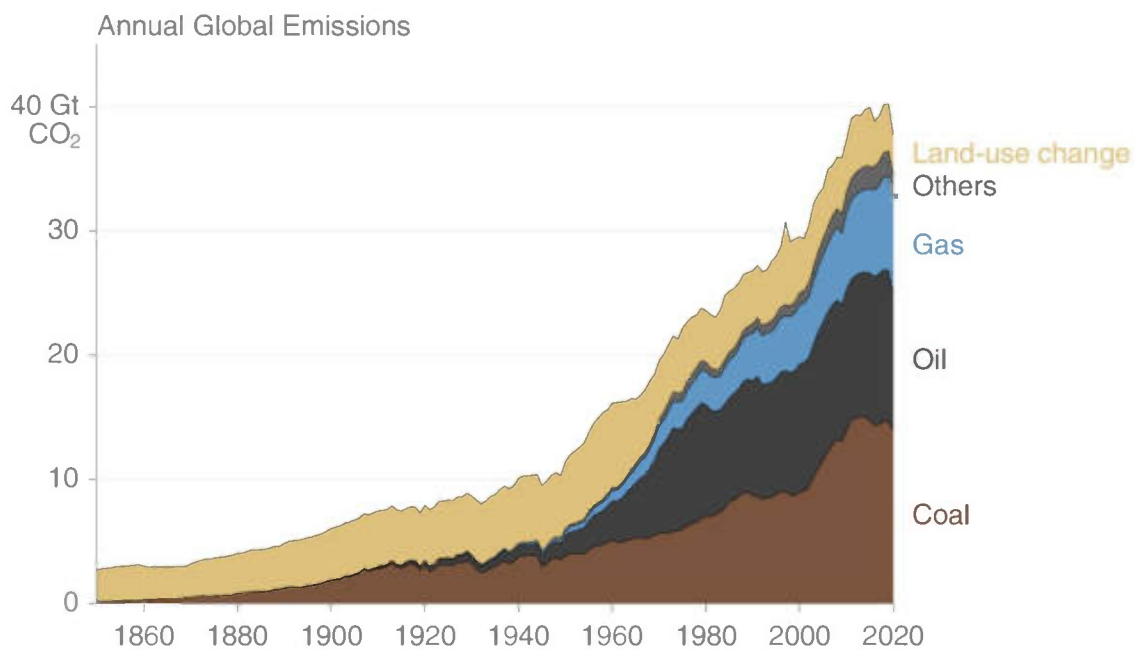


Figure 3: Annual Global Emissions, 1850–2020⁵⁰

45. The recent acceleration of fossil fuel emissions has led to a correspondingly sharp rise in atmospheric concentration of CO₂. Since 1960, the concentration of CO₂ in the atmosphere has

⁵⁰ Global Carbon Project, Global Carbon Budget 2021 83 (Nov. 4, 2021), https://www.globalcarbonproject.org/carbonbudget/21/files/GCP_CarbonBudget_2021.pdf.

spiked from under 320 parts per million (“ppm”) to approximately 419 ppm.⁵¹ The rate of growth of atmospheric CO₂ has also been increasing. From 1960 to 1970, atmospheric CO₂ increased by an average of approximately 1 ppm per year; over the last five years, it has increased by around 2.5 ppm per year.⁵²

46. The graph below indicates the tight nexus between the sharp increase in emissions from the combustion of fossil fuels and the steep rise of atmospheric concentrations of CO₂.

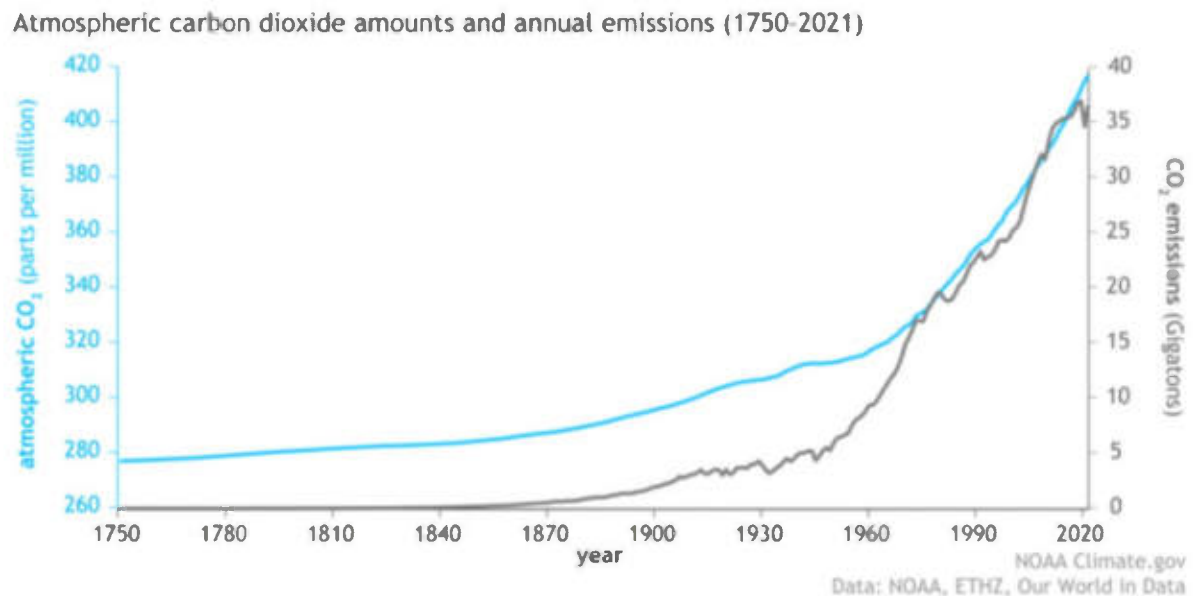


Figure 4: Atmospheric CO₂ Concentration and Annual Emissions⁵³

⁵¹ Global Monitoring Laboratory, Trends in Atmospheric Carbon Dioxide, NOAA (last visited Sept. 30, 2022), <https://www.esrl.noaa.gov/gmd/ccgg/trends>.

⁵² Ibid.

⁵³ Rebecca Lindsey, Climate Change: Atmospheric Carbon Dioxide, NOAA (June 23, 2022), <https://www.climate.gov/news-features/understanding-climate/climate-change-atmospheric-carbon-dioxide>.

47. Because of the increased burning of fossil fuel products, concentrations of greenhouse gases in the atmosphere are now at a level unprecedented in at least three million years.⁵⁴

48. As greenhouse gases accumulate in the atmosphere, the Earth radiates less energy back to space. This accumulation and associated disruption of the Earth's energy balance have myriad environmental and physical consequences, including, but not limited to, the following:

a. Warming of the Earth's average surface temperature both locally and globally, and increased frequency and intensity of heat waves; to date, global average air temperatures have risen approximately 1.09°C (1.9°F) above preindustrial temperatures; temperatures in particular locations have risen more;

b. Sea-level rise, due to the thermal expansion of warming ocean waters and runoff from melting glaciers and ice sheets;

c. Flooding and inundation of land and infrastructure, increased erosion, higher wave run-up and tides, increased frequency and severity of storm surges, saltwater intrusion, and other impacts of higher sea levels;

d. Changes to the global climate generally toward longer dry periods interspersed with fewer and more severe periods of precipitation, and associated impacts on the quantity and quality of water resources available to both human and ecological systems;

e. Ocean acidification, due to the increased uptake of atmospheric carbon dioxide by the oceans;

⁵⁴ Science Daily, More CO₂ Than Ever Before in 3 Million Years, Shows Unprecedented Computer Simulation (Apr. 3, 2019), <https://www.sciencedaily.com/releases/2019/04/190403155436.htm>.

f. Increased frequency and intensity of precipitation and extreme weather events due to the increase in the atmosphere's ability to hold moisture and increased evaporation;

g. Changes to terrestrial and marine ecosystems, and consequent impacts on the range of flora and fauna; and

h. Adverse impacts on human health associated with extreme weather, extreme heat, decreased air quality, and vector-borne illnesses.

49. As discussed below, these consequences of Defendants' tortious and deceptive conduct and its exacerbation of the climate crisis are already impacting New Jersey, its communities, and its natural resources, and will continue to increase in severity in New Jersey. Without Defendants' exacerbation of global warming caused by their deceptive and tortious conduct as alleged herein, the current physical and environmental changes caused by global warming would have been far less than those observed to date. Similarly, effects that will occur in the future would also be far less detrimental or would be avoided entirely.⁵⁵

50. From at least 1965 until the present, Defendants unduly inflated the market for fossil fuel products by aggressively promoting the use of fossil fuel products despite knowing the dangers associated with those products, and by deceiving consumers and the public about the consequences of the normal use of fossil fuel products, including by misrepresenting and concealing the hazards of those products. Consequently, substantially more anthropogenic

⁵⁵ See, e.g., Peter U. Clark et al., Consequences of Twenty-First-Century Policy for Multi-Millennial Climate and Sea-Level Change, 6 Nature Climate Change 360, 365 (2016) ("Our modelling suggests that the human carbon footprint of about [470 billion tons] by 2000 . . . has already committed Earth to a [global mean sea level] rise of ~1.7m (range of 1.2 to 2.2 m).").

greenhouse gases have been emitted into the environment than would have been emitted absent that tortious and deceptive conduct.

51. By quantifying greenhouse gas pollution attributable to Fossil Fuel Defendants' products and conduct, climatic and environmental responses to those emissions are also calculable and can be attributed to Fossil Fuel Defendants on an individual and aggregate basis.⁵⁶

52. Defendants' tortious, deceptive, and unconscionable conduct, as alleged herein, caused a substantial portion of the global atmospheric greenhouse gas concentrations, and the past, ongoing, and future disruptions to the environment—and consequent injuries to New Jersey, its communities, and its resources—associated therewith.

53. Defendants, individually and together, have substantially and measurably contributed to New Jersey's climate crisis-related injuries.

B. Defendants Went to Great Lengths to Understand, and Either Knew or Should Have Known About, the Dangers Associated with Their Fossil Fuel Products.

54. The fossil fuel industry has known about the potential warming effects of greenhouse gas emissions since as early as the 1950s, developing a sophisticated understanding of climate change that far exceeded the knowledge of the public, ordinary consumers, and the State. Although concealed at the time, the industry's knowledge was later uncovered by journalists at Inside Climate News and the Los Angeles Times, among others.⁵⁷ In 1954, geochemist Harrison Brown and his colleagues at the California Institute of Technology wrote to API, informing the trade association that preliminary measurements of natural archives of carbon in tree rings

⁵⁶ See Richard Heede, Tracing Anthropogenic Carbon Dioxide and Methane Emissions to Fossil Fuel and Cement Producers, 1854–2010, 122 Climatic Change 229 (2014), <https://link.springer.com/article/10.1007/s10584-013-0986-y>.

⁵⁷ See discussion infra ¶¶ 137–38.

indicated that fossil fuels had caused atmospheric carbon dioxide levels to increase by about 5% since 1840.⁵⁸ API funded the scientists for various research projects, and measurements of carbon dioxide continued for at least one year and possibly longer, although the results were never published or otherwise made available to the public.⁵⁹

55. In 1957, H.R. Brannon of Humble Oil (predecessor-in-interest to ExxonMobil) measured an increase in atmospheric carbon dioxide similar to that measured by Harrison Brown. Brannon communicated this information to API. Brannon knew of Brown's measurements, compared them with his, and found they agreed. Brannon published his results in the scientific literature, which was available to Fossil Fuel Defendants and/or their predecessors-in-interest.⁶⁰

56. In 1959, API organized a centennial celebration of the American oil industry at Columbia University in New York City.⁶¹ High-level representatives of Fossil Fuel Defendants were in attendance. One of the keynote speakers was the nuclear physicist Edward Teller. Teller warned the industry that "a temperature rise corresponding to a 10[%] increase in carbon dioxide will be sufficient to melt the icecap and submerge . . . [a]ll the coastal cities." Teller added that since "a considerable percentage of the human race lives in coastal regions, I think that this chemical contamination is more serious than most people tend to believe."⁶²

⁵⁸ See Benjamin Franta, Early Oil Industry Knowledge of CO₂ and Global Warming, 8 Nature Climate Change 1024, 1024–25 (2018).

⁵⁹ Id.

⁶⁰ H.R. Brannon, Jr. et al., Radiocarbon Evidence on the Dilution of Atmospheric and Oceanic Carbon by Carbon from Fossil Fuels, 38 Am. Geophysical Union Transactions 643, 643–50 (1957).

⁶¹ See Allan Nevins & Robert G. Dunlop, Energy and Man: A Symposium (Appleton-Century-Crofts, New York 1960). See also Franta, Early Oil Industry Knowledge of CO₂ and Global Warming at 1024–25.

⁶² Edward Teller, Energy Patterns of the Future, in Energy and Man: A Symposium 53–72 (1960).

57. Following his speech, Teller was asked to “summarize briefly the danger from increased carbon dioxide content in the atmosphere in this century.” He responded that “there is a possibility the icecaps will start melting and the level of the oceans will begin to rise.”⁶³

58. By 1965, concern over the potential for fossil fuel products to cause disastrous global warming reached the highest levels of the United States’ scientific community. In that year, President Lyndon B. Johnson’s Science Advisory Committee’s Environmental Pollution Panel reported that a 25% increase in carbon dioxide concentrations could occur by the year 2000, that such an increase could cause significant global warming, that melting of the Antarctic ice cap and rapid sea-level rise could result, and that fossil fuels were the clearest source of the carbon dioxide pollution.⁶⁴

59. Three days after President Johnson’s Science Advisory Committee report was published, the president of API, Frank Ikard, addressed leaders of the petroleum industry in Chicago at the trade association’s annual meeting. Ikard relayed the findings of the report to industry leaders, saying,

The substance of the report is that there is still time to save the world’s peoples from the catastrophic consequence of pollution, but time is running out.⁶⁵

Ikard also relayed that “by the year 2000 the heat balance will be so modified as possibly to cause marked changes in climate beyond local or even national efforts” and quoted the report’s finding that “the pollution from internal combustion engines is so serious, and is growing so fast, that an

⁶³ Id.

⁶⁴ President’s Science Advisory Committee, Restoring the Quality of Our Environment: Report of the Environmental Pollution Panel 9, 119–24 (Nov. 1965), <https://hdl.handle.net/2027/uc1.b4315678>.

⁶⁵ See Franta, Early Oil Industry Knowledge of CO₂ and Global Warming at 1024–25.

alternative nonpolluting means of powering automobiles, buses, and trucks is likely to become a national necessity.”⁶⁶

60. Thus, by 1965, Defendants and their predecessors-in-interest were aware that the scientific community had found that fossil fuel products, if used profligately, would cause global warming by the end of the century, and that such global warming would have wide-ranging and costly consequences.

61. In 1968, API received a report from the Stanford Research Institute, which it had hired to assess the state of research on environmental pollutants, including carbon dioxide.⁶⁷ The assessment endorsed the findings of President Johnson’s Scientific Advisory Council from three years prior, stating, “Significant temperature changes are almost certain to occur by the year 2000, and . . . there seems to be no doubt that the potential damage to our environment could be severe.” The scientists warned of “melting of the Antarctic ice cap” and informed API that “[p]ast and present studies of CO₂ are detailed and seem to explain adequately the present state of CO₂ in the atmosphere.” What was missing, the scientists said, was work on “air pollution technology and . . . systems in which CO₂ emissions would be brought under control.”⁶⁸

62. In 1969, the Stanford Research Institute delivered a supplemental report on air pollution to API, projecting with alarming particularity that atmospheric CO₂ concentrations would reach 370 parts per million (“ppm”) by 2000.⁶⁹ This projection turned out to almost exactly

⁶⁶ Id.

⁶⁷ Elmer Robinson & R.C. Robbins, Sources, Abundance, and Fate of Gaseous Atmospheric Pollutants, Stanford Rsch. Inst. (Feb. 1968), <https://www.smokeandfumes.org/documents/document16>.

⁶⁸ Ibid.

⁶⁹ Elmer Robinson & R.C. Robbins, Sources, Abundance, and Fate of Gaseous Atmospheric Pollutants Supplement, Stanford Rsch. Inst. (June 1969).

match the actual CO₂ concentrations measured in 2000 of 369.64 ppm.⁷⁰ The report explicitly connected the rise in CO₂ levels to the combustion of fossil fuels, finding it “unlikely that the observed rise in atmospheric CO₂ has been due to changes in the biosphere.”

63. By virtue of their membership and participation in API at that time, Fossil Fuel Defendants received or should have received the Stanford Research Institute reports and were on notice of their conclusions.

64. In 1972, API members—including Fossil Fuel Defendants—received a status report on all environmental research projects funded by API. The report summarized the 1968 SRI report describing the impact of fossil fuel products—including Defendants’—on the environment, including global warming and its attendant consequences. Fossil Fuel Defendants and/or their predecessors-in-interest that received this report included but were not limited to: American Standard of Indiana (BP), Asiatic (Shell), Atlantic Richfield (BP), British Petroleum (BP), Chevron Standard of California (Chevron), Esso Research (ExxonMobil), Ethyl (formerly affiliated with Esso, which was subsumed by ExxonMobil), Getty (ExxonMobil), Gulf (Chevron, among others), Humble Standard of New Jersey (ExxonMobil, Chevron, BP), Mobil (ExxonMobil), Pan American (BP), Shell, Standard of Ohio (BP), Texaco (Chevron), Union (Chevron), Skelly (ExxonMobil), Colonial Pipeline (ownership has included BP, ExxonMobil, and Chevron entities, among others), Continental (ConocoPhillips), Dupont (former owner of Conoco), Phillips (ConocoPhillips), and Caltex (Chevron).⁷¹

⁷⁰ NASA Goddard Institute for Space Studies, Global Mean CO₂ Mixing Ratios (ppm): Observations, <https://data.giss.nasa.gov/modelforce/ghgases/Fig1A.ext.txt>.

⁷¹ American Petroleum Institute, Committee for Air and Water Conservation, Environmental Research: A Status Report (Jan. 1972), <http://files.eric.ed.gov/fulltext/ED066339.pdf>.

65. In 1977, James Black of Exxon's Products Research Division presented to the Exxon Corporation Management Committee on the greenhouse effect. The next year, Black presented to another internal Exxon group, PERCC. In a letter to the Vice President of Exxon Research and Engineering, Black summarized his presentations.⁷² He reported that "current scientific opinion overwhelmingly favors attributing atmospheric carbon dioxide increase to fossil fuel consumption," and that doubling atmospheric carbon dioxide would, according to the best climate model available, "produce a mean temperature increase of about 2°C to 3°C over most of the earth," with two to three times as much warming at the poles. The figure below, reproduced from Black's memo, illustrates Exxon's understanding of the timescale and magnitude of global warming that its products would cause.

⁷² Letter from J.F. Black, Exxon Research and Engineering Co., to F.G. Turpin, Exxon Research and Engineering Co., The Greenhouse Effect, ClimateFiles (June 6, 1978), <http://www.climatefiles.com/exxonmobil/1978-exxon-memo-on-greenhouse-effect-for-exxon-corporation-management-committee>.

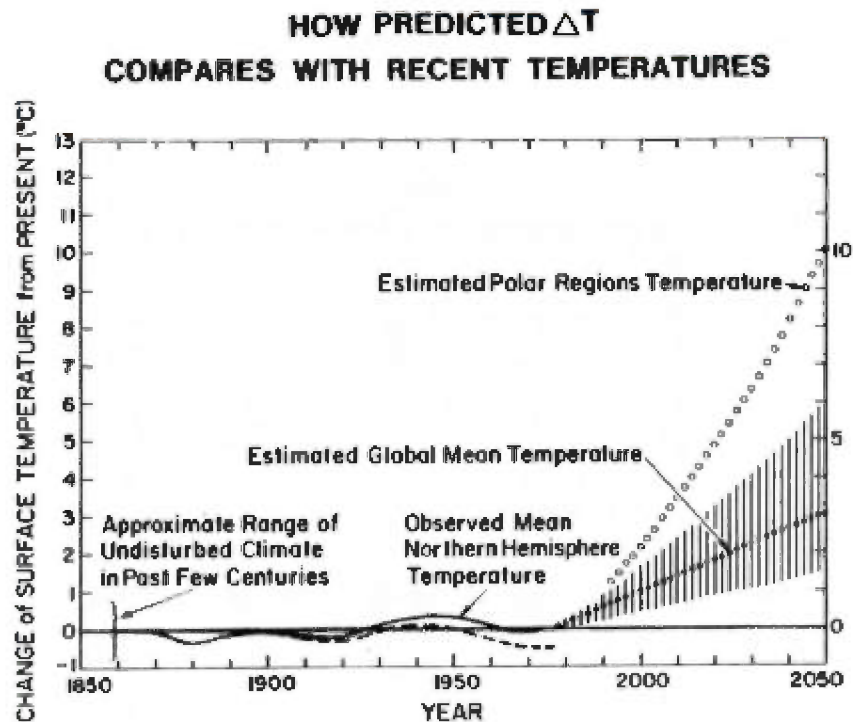


Figure 5: Future Global Warming Predicted Internally by Exxon in 1977⁷³

66. The impacts of such global warming, Black reported, would include “more rainfall,” which would “benefit some areas and would harm others.” “Some countries would benefit, but others could have their agricultural output reduced or destroyed.” “Even those nations which are favored, however, would be damaged for a while since their agricultural and industrial patterns have been established on the basis of the present climate.” Black reported that “[i]t is currently estimated that mankind has a 5–10 yr. time window to obtain the necessary information” and “establish what must be done,” at which time, “hard decisions regarding changes in energy strategies might become critical.”⁷⁴

⁷³ Ibid. The company predicted global warming of 3°C by 2050, with 10°C warming in polar regions. The difference between the dashed and solid curves prior to 1977 represents global warming that Exxon believed may already have been occurring.

⁷⁴ Ibid.

67. Also in 1977, Henry Shaw of the Exxon Research and Engineering Technology Feasibility Center attended a meeting of scientists and governmental officials in Atlanta, Georgia, on developing research programs to study carbon dioxide and global warming. Shaw's internal memo to Exxon's John W. Harrison reported that "[t]he climatic effects of carbon dioxide release may be the primary limiting factor on energy production from fossil fuels[.]"⁷⁵

68. In 1979, Exxon's W. L. Ferrall distributed an internal memorandum.⁷⁶ According to that memo, "The most widely held theory [about global warming] is that: The increase [in carbon dioxide] is due to fossil fuel combustion; [i]ncreasing CO₂ concentration will cause a warming of the earth's surface; [and t]he present trend of fossil fuel consumption will cause dramatic environmental effects before the year 2050. . . . The potential problem is great and urgent." The memo added that, if limits were not placed on fossil fuel production,

Noticeable temperature changes would occur around 2010 as the [carbon dioxide] concentration reaches 400 ppm [parts per million]. Significant climatic changes occur around 2035 when the concentration approaches 500 ppm. A doubling of the pre-industrial concentration [*i.e.*, 580 ppm] occurs around 2050. The doubling would bring about dramatic changes in the world's environment[.]⁷⁷

Those projections proved remarkably accurate: annual average atmospheric CO₂ concentrations surpassed 400 ppm in 2015 for the first time in millions of years.⁷⁸ Limiting the carbon dioxide concentration in the atmosphere to 440 ppm, or a 50% increase over preindustrial levels, which the memo said was "assumed to be a relatively safe level for the environment," would require

⁷⁵ Henry Shaw, Environmental Effects of Carbon Dioxide, Climate Investigations Ctr. (Oct. 31, 1977), <https://www.industrydocuments.ucsf.edu/docs/tpwl0228>.

⁷⁶ Letter from W.L. Ferrall, Exxon Research and Engineering Co., to Dr. R.L. Hirsch, Controlling Atmospheric CO₂, Climate Investigations Ctr. (Oct. 16, 1979), <https://www.industrydocuments.ucsf.edu/docs/mqw10228>.

⁷⁷ Ibid.

⁷⁸ Nicola Jones, How the World Passed a Carbon Threshold and Why It Matters, Yale Env't 360 (Jan. 26, 2017), <http://e360.yale.edu/features/how-the-world-passed-a-carbon-threshold-400ppm-and-why-it-matters>.

fossil fuel emissions to peak in the 1990s and non-fossil energy systems to be rapidly deployed. Eighty percent of fossil fuel resources, the memo calculated, would have to be left in the ground to avoid doubling atmospheric carbon dioxide concentrations. Certain fossil fuels, such as shale oil, could not be substantially exploited at all.

69. But instead of heeding the repeated warnings of the catastrophic impacts of climate change resulting from burning fossil fuels, in November 1979, Exxon's Henry Shaw wrote to Exxon's Harold Weinberg urging "a very aggressive defensive program in . . . atmospheric science and climate because there is a good probability that legislation affecting our business will be passed."⁷⁹ Shaw stated that an expanded research effort was necessary to "influence possible legislation on environmental controls" and "respond" to environmental groups, which had already opposed synthetic fuels programs based on CO₂ emissions. Shaw suggested the formation of a "small task force" to evaluate a potential program in CO₂ and climate, acid rain, carcinogenic particulates, and other pollution issues caused by fossil fuels.⁸⁰

70. In 1979, API and its members, including the Fossil Fuel Defendants, convened a Task Force to monitor and share cutting edge climate research among the oil industry. The group was initially called the CO₂ and Climate Task Force, but in 1980 changed its name to the Climate and Energy Task Force (hereinafter referred to as "CO₂ Task Force"). Membership included senior scientists and engineers from nearly every major U.S. and multinational oil and gas company, including Exxon, Mobil (ExxonMobil), Amoco (BP), Phillips (ConocoPhillips), Texaco (Chevron), Shell, Sohio (BP), Standard Oil of California (BP), and Gulf Oil (Chevron), among others. The Task Force was charged with monitoring government and academic research,

⁷⁹ Memorandum from H. Shaw to H.N. Weinberg, Research in Atmospheric Science, Climate Investigations Ctr. (Nov. 19, 1979), <https://www.industrydocuments.ucsf.edu/docs/yqwl0228>.

⁸⁰ Ibid.

evaluating the implications of emerging science for the petroleum and gas industries, and identifying where reductions in greenhouse gas emissions from Defendants' fossil fuel products could be made.⁸¹

71. In 1979, API prepared a background paper on carbon dioxide and climate for the CO₂ Task Force, stating that CO₂ concentrations were rising steadily in the atmosphere, and predicting when the first clear effects of global warming might be detected.⁸² API reported to its members that although global warming would occur, it would likely go undetected until approximately the year 2000 because, API believed, its effects were being temporarily masked by a natural cooling trend. However, this cooling trend, API warned its members, would reverse around 1990, adding to the warming caused by CO₂.

72. In 1980, API's CO₂ Task Force invited Dr. John Laurmann, "a recognized expert in the field of CO₂ and climate," to present to its members.⁸³ The meeting lasted for seven hours and included a "complete technical discussion" of global warming caused by fossil fuels, including "the scientific basis and technical evidence of CO₂ buildup, impact on society, methods of modeling and their consequences, uncertainties, policy implications, and conclusions that can be drawn from present knowledge." Representatives from Standard Oil of Ohio (predecessor to BP), Texaco (now Chevron), Exxon, and API were present, and the minutes of the meeting were

⁸¹ Neela Banerjee, Exxon's Oil Industry Peers Knew About Climate Dangers in the 1970s, Too, Inside Climate News (Dec. 22, 2015), <https://insideclimatenews.org/news/22122015/exxon-mobil-oil-industry-peers-knew-about-climate-change-dangers-1970s-american-petroleum-institute-api-shell-chevron-texaco>.

⁸² Memorandum from R.J. Campion to J.T. Burgess, The API's Background Paper on CO₂ Effects, Climate Investigations Ctr. (Sep. 6, 1979), <https://www.industrydocuments.ucsf.edu/docs/lqwl0228>.

⁸³ Letter from Jimmie J. Nelson, American Petroleum Institute, to AQ-9 Task Force, The CO₂ Problem; Addressing Research Agenda Development, Climate Investigations Ctr. (Mar. 18, 1980), <https://www.industrydocuments.ucsf.edu/docs/gffl0228>.

distributed to the entire API CO₂ Task Force. Laurmann informed the Task Force of the “scientific consensus on the potential for large future climatic response to increased CO₂ levels” and that there was “strong empirical evidence that [the carbon dioxide] rise [was] caused by anthropogenic release of CO₂, mainly from fossil fuel burning.” Unless fossil fuel production and use were controlled, atmospheric carbon dioxide would be twice preindustrial levels by 2038, with “likely impacts” along the following trajectory:

1°C RISE (2005): BARELY NOTICEABLE

2.5°C RISE (2038): MAJOR ECONOMIC CONSEQUENCES, STRONG REGIONAL DEPENDENCE

5°C RISE (2067): GLOBALLY CATASTROPHIC EFFECTS

Laurmann warned the CO₂ Task Force that global warming of 2.5°C would “bring[] world economic growth to a halt[.]” Laurmann also suggested that action should be taken immediately, asking, “Time for action?” and noting that if achieving high market penetration for new energy sources would require a long time (i.e., decades), then there would be “no leeway” for delay. The minutes of the CO₂ Task Force’s meeting show that one of the Task Force’s goals was “to help develop ground rules for [. . .] the cleanup of fuels as they relate to CO₂ creation,” and the Task Force discussed the requirements for a worldwide “energy source changeover” away from fossil fuels.⁸⁴

73. In 1980, Imperial Oil Limited (a Canadian ExxonMobil subsidiary) reported to managers and environmental staff at multiple affiliated Esso and Exxon companies that there was

⁸⁴ Ibid.

“no doubt” that fossil fuels were aggravating the build-up of CO₂ in the atmosphere.⁸⁵ Imperial noted that “[t]echnology exists to remove CO₂ from stack gases but removal of only 50% of the CO₂ would double the cost of power generation.”⁸⁶

74. In December 1980, Exxon’s Henry Shaw distributed a memorandum on the “CO₂ Greenhouse Effect.”⁸⁷ Shaw stated that the future buildup of carbon dioxide was a function of fossil fuel use, and that internal calculations performed at Exxon indicated that atmospheric carbon dioxide would double by around the year 2060. According to the “most widely accepted” climate models, Shaw reported, this doubling of carbon dioxide would “most likely” result in global warming of approximately 3°C, with a greater effect in polar regions. Calculations predicting a lower temperature increase, such as 0.25°C, were “not held in high regard by the scientific community,” Shaw said. Shaw also noted that the ability of the oceans to absorb heat could delay (but not prevent) the temperature increase “by a few decades,” and that natural, random temperature fluctuations would hide global warming from CO₂ until around the year 2000. The memo included the Figure below, which illustrates global warming anticipated by Exxon as well as the company’s understanding that significant global warming would occur before exceeding the range of natural variability.

⁸⁵ Imperial Oil Ltd., Review of Environmental Protection Activities for 1978–1979 (Aug. 6, 1980), <http://www.documentcloud.org/documents/2827784-1980-Imperial-Oil-Review-of-Environmental.html#document/p2>.

⁸⁶ Ibid.

⁸⁷ Memorandum from Henry Shaw to T.K. Kett, Exxon Research and Engineering Company’s Technological Forecast: CO₂ Greenhouse Effect (Dec. 18, 1980), <https://www.documentcloud.org/documents/2805573-1980-Exxon-Memo-Summarizing-Current-Models-And.html>.

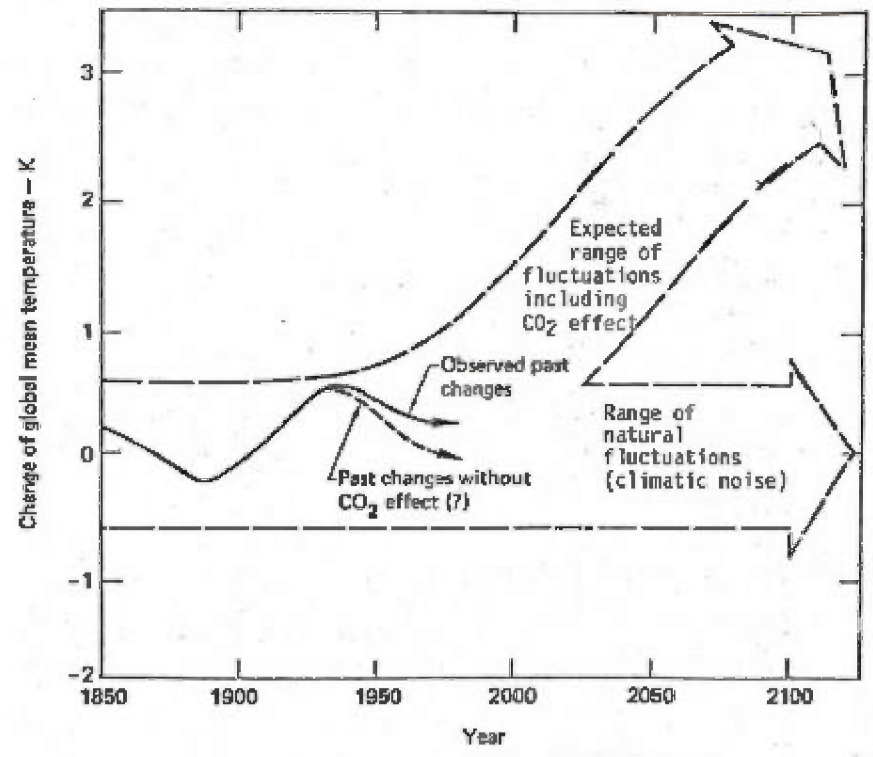


Figure 6: Future Global Warming Predicted Internally by Exxon in 1980⁸⁸

The memo reported that such global warming would cause “increased rainfall[] and increased evaporation,” which would have a “dramatic impact on soil moisture, and in turn, on agriculture.” Some areas would turn to desert, and the American Midwest would become “much drier.” “[W]eeds and pests,” the memo reported, “would tend to thrive with increasing global average temperature.” Other “serious global problems” could also arise, such as the melting of the West Antarctic ice sheet, which “could cause a rise in the sea level on the order of 5 meters.” The memo called for “society” to pay the bill, estimating that some adaptive measures would cost no more

⁸⁸ Ibid. The company anticipated a doubling of carbon dioxide by around 2060 and that the oceans would delay the warming effect by a few decades, leading to approximately 3°C warming by the end of the century.

than “a few percent” of Gross National Product (i.e., \$400 billion in 2018).⁸⁹ Exxon predicted that national policy action would not occur until around 1989, when the Department of Energy would finish a ten-year study of carbon dioxide and global warming.⁹⁰ Shaw also reported that Exxon had studied various responses for avoiding or reducing a carbon dioxide build-up, including “stopping all fossil fuel combustion at the 1980 rate” and “investigat[ing] the market penetration of non-fossil fuel technologies.” The memo estimated that such non-fossil energy technologies “would need about 50 years to penetrate and achieve roughly half of the total [energy] market.”⁹¹

75. In February 1981, Exxon’s Contract Research Office prepared and distributed a “Scoping Study on CO₂” to the leadership of Exxon Research and Engineering Company.⁹² The study reviewed Exxon’s current research on carbon dioxide and considered whether to expand Exxon’s research on carbon dioxide or global warming further at that time. The study recommended against expanding Exxon’s research activities in those areas because its current research programs were sufficient for achieving the company’s goals of closely monitoring federal research, building credibility and public relations value, and developing in-house expertise regarding CO₂ and global warming. However, the study recommended that Exxon centralize its activities in monitoring, analyzing, and disseminating outside research on CO₂ and global warming. The study stated that Exxon’s James Black was actively monitoring and keeping the

⁸⁹ Ibid.; see Gross National Product, Fed. Reserve Bank of St. Louis (updated Mar. 26, 2020), <https://fred.stlouisfed.org/series/GNPA>.

⁹⁰ Memorandum from Henry Shaw to T.K. Kett, Exxon Research and Engineering Company’s Technological Forecast: CO₂ Greenhouse Effect (Dec. 18, 1980), <https://www.documentcloud.org/documents/2805573-1980-Exxon-Memo-Summarizing-Current-Models-And.html>.

⁹¹ Ibid.

⁹² Letter from G.H. Long, Exxon Research and Engineering Co., to P.J. Lucchesi et al., Atmospheric CO₂ Scoping Study, Climate Investigations Ctr. (Feb. 5, 1981), <https://www.industrydocuments.ucsf.edu/docs/yxfl0228>.

company apprised of outside research developments, including those on climate modeling and “CO₂-induced effects.” The study also noted that other companies in the fossil fuel industry were “auditing Government meetings on the subject.” In discussing “options for reducing CO₂ build-up in the atmosphere,” the study noted that although capturing CO₂ from flue gases (i.e., exhaust gas produced by combustion) was technologically possible, the cost was high, and “energy conservation or shifting to renewable energy sources[] represent the only options that might make sense.”⁹³

76. Thus, by 1981, Exxon and other fossil fuel companies were actively monitoring all aspects of CO₂ and global warming research both nationally and internationally, and Exxon had recognized that a shift to renewable energy sources would be necessary to avoid a large CO₂ build-up in the atmosphere and resultant global warming.

77. Exxon scientist Roger Cohen warned his colleagues in a 1981 internal memorandum that “future developments in global data gathering and analysis, along with advances in climate modeling, may provide strong evidence for a delayed CO₂ effect of a truly substantial magnitude,” and that under certain circumstances it would be “very likely that we will unambiguously recognize the threat by the year 2000.”⁹⁴ Cohen had expressed concern that the memorandum understated the potential effects of unabated CO₂ emissions from Defendants’ fossil fuel products, saying, “it is distinctly possible that [Exxon Planning Division’s] . . . scenario will produce effects which will indeed be catastrophic (at least for a substantial fraction of the world’s population).”⁹⁵

⁹³ Ibid.

⁹⁴ Memorandum from R.W. Cohen to W. Glass, ClimateFiles (Aug. 18, 1981), <http://www.climatefiles.com/exxonmobil/1981-exxon-memo-on-possible-emission-consequences-of-fossil-fuel-consumption>.

⁹⁵ Ibid.

78. In 1981, Exxon's Henry Shaw, the company's lead climate researcher at the time, prepared a summary of Exxon's current position on the greenhouse effect for Edward David Jr., president of Exxon Research and Engineering, stating in relevant part:

- "Atmospheric CO₂ will double in 100 years if fossil fuels grow at 1.4%/a.
- 3°C global average temperature rise and 10°C at poles if CO₂ doubles.
 - Major shifts in rainfall/agriculture
 - Polar ice may melt"⁹⁶

79. In 1982, another report prepared for API by scientists at the Lamont-Doherty Geological Observatory at Columbia University recognized that atmospheric CO₂ concentration had risen significantly compared to the beginning of the industrial revolution—from about 290 ppm to about 340 ppm in 1981. The report also acknowledged that despite differences in climate modelers' predictions, there was scientific consensus that "a doubling of atmospheric CO₂ from . . . pre-industrial revolution value would result in an average global temperature rise of $(3.0 \pm 1.5)^{\circ}\text{C}$ [$5.4 \pm 2.7^{\circ}\text{F}$]." It went further, warning that "[s]uch a warming can have serious consequences for man's comfort and survival since patterns of aridity and rainfall can change, the height of the sea level can increase considerably and the world food supply can be affected."⁹⁷ Exxon's own modeling research confirmed this, and the company's results were later published in at least three peer-reviewed scientific papers.⁹⁸

⁹⁶ Memorandum from Henry Shaw to Dr. E.E. David, CO₂ Position Statement, Inside Climate News (May 15, 1981) (footnote omitted), <https://insideclimatenews.org/documents/exxon-position-co2-1981>.

⁹⁷ American Petroleum Institute, Climate Models and CO₂ Warming: A Selective Review and Summary (Columbia Univ., Mar. 1982), [https://assets.documentcloud.org/documents/2805626/1982-API-Climate-Models-and-CO₂-Warming-a.pdf](https://assets.documentcloud.org/documents/2805626/1982-API-Climate-Models-and-CO2-Warming-a.pdf).

⁹⁸ See Memorandum from Roger W. Cohen, Exxon Research and Engineering Co., to A.M. Natkin, Exxon Corp. Office of Science and Technology, ClimateFiles (Sept. 2, 1982),

80. Also in 1982, Exxon's Environmental Affairs Manager distributed a primer on climate change to a "wide circulation [of] Exxon management [. . .] intended to familiarize Exxon personnel with the subject."⁹⁹ The primer was "restricted to Exxon personnel and not to be distributed externally." The primer compiled science on climate change, confirmed fossil fuel combustion as a primary anthropogenic contributor to global warming, and estimated a CO₂ doubling (i.e., 580 ppm) by 2070 with a "Most Probable Temperature Increase" of more than 2°C over the 1979 level, as shown in the Figure below.

<http://www.climatefiles.com/exxonmobil/1982-exxon-memo-summarizing-climate-modeling-and-co2-greenhouse-effect-research> (discussing research articles and summarizing the findings of research in climate modeling).

⁹⁹ Memorandum from M.B. Glaser, CO₂ "Greenhouse" Effect, Exxon Research and Engineering Company (Nov. 12, 1982), <https://insideclimatenews.org/wp-content/uploads/2015/09/1982-Exxon-Primer-on-CO2-Greenhouse-Effect.pdf>.

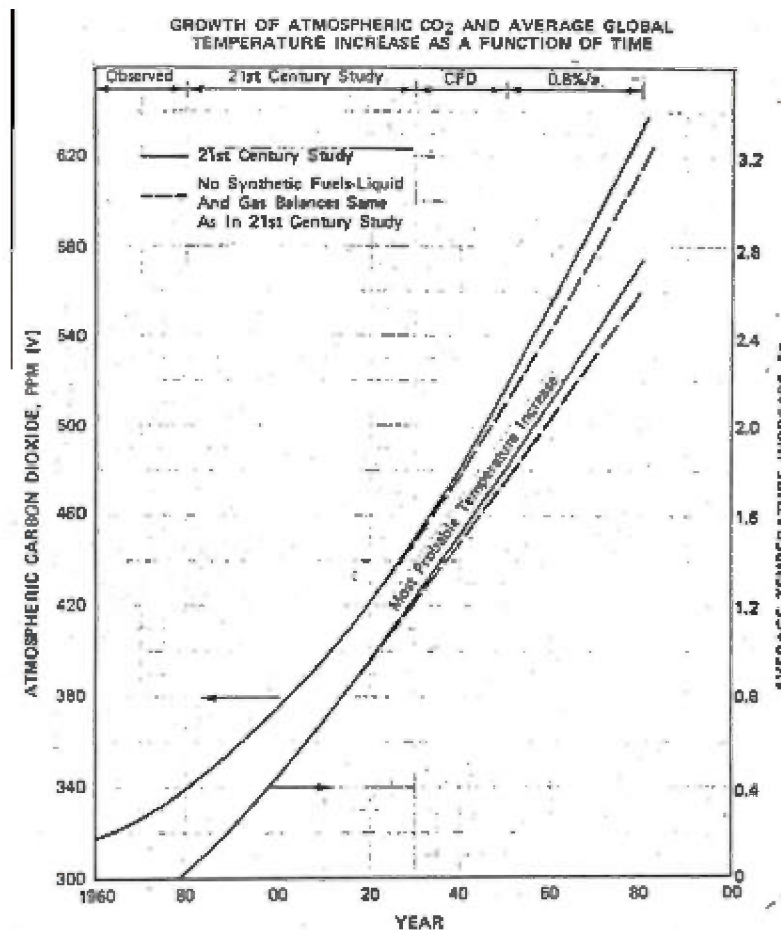


Figure 7: Exxon's Internal Prediction of Future CO₂ Increase and Global Warming from 1982¹⁰⁰

The report also warned of “uneven global distribution of increased rainfall and increased evaporation,” explaining that “disturbances in the existing global water distribution balance would have dramatic impact on soil moisture, and in turn, on agriculture,” and that the American Midwest would dry out. In addition to effects on global agriculture, the report stated, “there are some potentially catastrophic effects that must be considered.” Melting of the Antarctic ice sheet could

¹⁰⁰ Ibid. The company predicted a doubling of atmospheric carbon dioxide concentrations above preindustrial levels by around 2070 (left curve), with a temperature increase of more than 2°C over the 1979 level (right curve). The same document indicated that Exxon estimated that by 1979 a global warming effect of approximately 0.25°C may already have occurred.

result in global sea-level rise of five meters, which would “cause flooding on much of the U.S. East Coast, including the state of Florida and Washington, D.C.” Weeds and pests would “tend to thrive with increasing global temperature.” The primer warned of “positive feedback mechanisms” in polar regions, which could accelerate global warming, such as deposits of peat “containing large reservoirs of organic carbon” becoming “exposed to oxidation” and releasing their carbon into the atmosphere. “Similarly,” the primer warned, “thawing might also release large quantities of carbon currently sequestered as methane hydrates” on the sea floor. “All biological systems would be affected,” and “the most severe economic effects could be on agriculture.”

81. The report recommended studying “soil erosion, salinization, or the collapse of irrigation systems” in order to understand how society might be affected and might respond to global warming, as well as “[h]ealth effects” and “stress associated with climate related famine or migration[.]” The report estimated that undertaking “[s]ome adaptive measures” (not all of them) would cost “a few percent of the gross national product estimated in the middle of the next century” (i.e., \$400 billion in 2018).¹⁰¹ To avoid such impacts, the report discussed an analysis from the Massachusetts Institute of Technology and Oak Ridge National Laboratory, which studied energy alternatives and requirements for introducing them into widespread use, and which recommended that “vigorous development of non-fossil energy sources be initiated as soon as possible.”¹⁰² The primer also noted that other greenhouse gases related to fossil fuel production, such as methane, would contribute significantly to global warming, and that concerns over CO₂ would be reduced if fossil

¹⁰¹ See Gross National Product, Fed. Reserve Bank of St. Louis (updated Mar. 26, 2020), <https://fred.stlouisfed.org/series/GNPA>.

¹⁰² Memorandum from M.B. Glaser, CO₂ “Greenhouse” Effect, Exxon Research and Engineering Company (Nov. 12, 1982), <https://insideclimatenews.org/sites/default/files/documents/1982%20Exxon%20Primer%20on%20CO2%20Greenhouse%20Effect.pdf>.

fuel use were decreased due to “high price, scarcity, [or] unavailability.” “Mitigation of the ‘greenhouse effect’ would require major reductions in fossil fuel combustion,” the primer stated. The primer was widely distributed to Exxon leadership.

82. In September 1982, the Director of Exxon’s Theoretical and Mathematical Sciences Laboratory, Roger Cohen, wrote Alvin Natkin of Exxon’s Office of Science and Technology to summarize Exxon’s internal research on climate modeling.¹⁰³ Cohen reported:

[O]ver the past several years a clear scientific consensus has emerged regarding the expected climatic effects of increased atmospheric CO₂. The consensus is that a doubling of atmospheric CO₂ from its pre-industrial revolution value would result in an average global temperature rise of (3.0 ± 1.5) °C. . . . The temperature rise is predicted to be distributed nonuniformly over the earth, with above-average temperature elevations in the polar regions and relatively small increases near the equator. There is unanimous agreement in the scientific community that a temperature increase of this magnitude would bring about significant changes in the earth’s climate, including rainfall distribution and alterations of the biosphere. The time required for doubling of atmospheric CO₂ depends on future world consumption of fossil fuels.

Cohen described Exxon’s own climate modeling experiments, reporting that they produced “a global average temperature increase that falls well within the range of the scientific consensus,” were “consistent with the published predictions of more complex climate models,” and were “also in agreement with estimates of the global temperature distribution during a certain prehistoric period when the earth was much warmer than today.” “In summary,” Cohen wrote, “the results of our research are in accord with the scientific consensus on the effect of increased atmospheric CO₂ on climate.” Cohen noted that the results would be presented to the scientific community by Exxon’s collaborator Martin Hoffert at a Department of Energy meeting, as well as by Exxon’s

¹⁰³ Memorandum from Roger W. Cohen, Exxon Research and Engineering Co., to A.M. Natkin, Exxon Corp. Office of Science and Technology, ClimateFiles (Sept. 2, 1982), <http://www.climatefiles.com/exxonmobil/1982-exxon-memo-summarizing-climate-modeling-and-co2-greenhouse-effect-research>.

Brian Flannery at the Exxon-supported Ewing Symposium, later that year.

83. In October 1982, at the fourth biennial Maurice Ewing Symposium at the Lamont-Doherty Geophysical Observatory, which was attended by members of API and Exxon Research and Engineering Company, the Observatory's president E.E. David delivered a speech titled, "Inventing the Future: Energy and the CO₂ 'Greenhouse Effect.'" ¹⁰⁴ His remarks included the following statement: "Few people doubt that the world has entered an energy transition away from dependence upon fossil fuels and toward some mix of renewable resources that will not pose problems of CO₂ accumulation." He went on, discussing the human opportunity to address anthropogenic climate change before the point of no return:

It is ironic that the biggest uncertainties about the CO₂ buildup are not in predicting what the climate will do, but in predicting what people will do. . . . It appears we still have time to generate the wealth and knowledge we will need to invent the transition to a stable energy system.

84. Throughout the early 1980s, at Exxon's direction, Exxon climate scientist Henry Shaw forecasted emissions of CO₂ from fossil fuel use. Those estimates were incorporated into Exxon's twenty-first century energy projections and were distributed among Exxon's various divisions. Shaw's conclusions included an expectation that atmospheric CO₂ concentrations would double in 2090 per the Exxon model, with an attendant 2.3–5.6°F average global temperature increase. Shaw compared his model results to those of the EPA, the National Academy of Sciences, and the Massachusetts Institute of Technology, indicating that the Exxon model predicted a longer

¹⁰⁴ Dr. E.E. David, Jr., President, Exxon Research and Engineering Co., Remarks at the Fourth Annual Ewing Symposium, Tenaflly, NJ, ClimateFiles (Oct. 26, 1982), <http://www.climatefiles.com/exxonmobil/inventing-future-energy-co2-greenhouse-effect>.

delay than any of the other models, although its temperature increase prediction was in the mid-range of the four projections.¹⁰⁵

85. During the 1980s, many Defendants formed their own research units focused on climate modeling. API, including the API CO₂ Task Force, provided a forum for Fossil Fuel Defendants to share their research efforts and corroborate their findings related to anthropogenic greenhouse gas emissions.¹⁰⁶

86. During this time, Defendants' statements expressed an understanding of their obligation to consider and mitigate the externalities of unabated promotion, marketing, and sale of their fossil fuel products. For example, in 1988, Richard Tucker, the president of Mobil Oil, presented at the American Institute of Chemical Engineers National Meeting, the premier educational forum for chemical engineers, where he stated:

[H]umanity, which has created the industrial system that has transformed civilization, is also responsible for the environment, which sometimes is at risk because of unintended consequences of industrialization. . . . Maintaining the health of this life-support system is emerging as one of the highest priorities. . . . [W]e must all be environmentalists.

The environmental covenant requires action on many fronts . . . the low-atmosphere ozone problem, the upper-atmosphere ozone problem and the greenhouse effect, to name a few. . . . Our strategy must be to reduce pollution before it is ever generated—to prevent problems at the source.

Prevention means engineering a new generation of fuels, lubricants and chemical products. . . . Prevention means designing catalysts and processes that minimize or eliminate the production of unwanted byproducts. . . . Prevention on a global

¹⁰⁵ Neela Banerjee, More Exxon Documents Show How Much It Knew About Climate 35 Years Ago, Inside Climate News (Dec. 1, 2015), <https://insideclimatenews.org/news/01122015/documents-exxons-early-co2-position-senior-executives-engage-and-warming-forecast>.

¹⁰⁶ Neela Banerjee, Exxon's Oil Industry Peers Knew About Climate Dangers in the 1970s, Too, Inside Climate News (Dec. 22, 2015), <https://insideclimatenews.org/news/22122015/exxon-mobil-oil-industry-peers-knew-about-climate-change-dangers-1970s-american-petroleum-institute-api-shell-chevron-texaco/>.

scale may even require a dramatic reduction in our dependence on fossil fuels—and a shift towards solar, hydrogen, and safe nuclear power. It may be possible that—just possible—that the energy industry will transform itself so completely that observers will declare it a new industry. . . . Brute force, low-tech responses and money alone won’t meet the challenges we face in the energy industry.¹⁰⁷

87. Also in 1988, the Shell Greenhouse Effect Working Group issued a confidential internal report, “The Greenhouse Effect,” which acknowledged global warming’s anthropogenic nature: “Man-made carbon dioxide released into and accumulated in the atmosphere is believed to warm the earth through the so-called greenhouse effect.” The authors also noted the burning of fossil fuels as a primary driver of CO₂ buildup and warned that warming would “create significant changes in sea level, ocean currents, precipitation patterns, regional temperature and weather.” They further pointed to the potential for “direct operational consequences” of sea-level rise on “offshore installations, coastal facilities and operations (e.g. platforms, harbors, refineries, depots).”¹⁰⁸

88. Similar to early warnings by Exxon scientists, the Shell report noted that “by the time the global warming becomes detectable it could be too late to take effective countermeasures to reduce the effects or even to stabilise the situation.” The authors mentioned the need to consider policy changes on multiple occasions, noting that “the potential implications for the world are . . . so large that policy options need to be considered much earlier” and that research should be “directed more to the analysis of policy and energy options than to studies of what we will be facing exactly.”

¹⁰⁷ Richard E. Tucker, High Tech Frontiers in the Energy Industry: The Challenge Ahead, AIChE National Meeting (Nov. 30, 1988), <https://hdl.handle.net/2027/purl.32754074119482?urlappend=%3Bseq=528>.

¹⁰⁸ Shell Internationale Petroleum, Greenhouse Effect Working Group, The Greenhouse Effect (May 1988), <https://www.documentcloud.org/documents/4411090-Dokument3.html#document/p9/a411239>.

89. In 1989, Esso Resources Canada (ExxonMobil) commissioned a report on the impacts of climate change on existing and proposed natural gas facilities in the Mackenzie River Valley and Delta, including extraction facilities on the Beaufort Sea and a pipeline crossing Canada's Northwest Territory.¹⁰⁹ It reported that "large zones of the Mackenzie Valley could be affected dramatically by climatic change" and that "the greatest concern in Norman Wells [oil town in North West Territories, Canada] should be the changes in permafrost that are likely to occur under conditions of climate warming."¹¹⁰ The report concluded that, in light of climate models showing a "general tendency towards warmer and wetter climate," operation of those facilities would be compromised by increased precipitation, increase in air temperature, changes in permafrost conditions, and, significantly, sea-level rise and erosion damage.¹¹¹ The authors recommended factoring those eventualities into future development planning and also warned that "a rise in sea level could cause increased flooding and erosion damage on Richards Island."

90. Ken Croasdale, a senior ice researcher for Exxon's subsidiary Imperial Oil, stated to an audience of engineers in 1991 that greenhouse gases are rising "due to the burning of fossil fuels. Nobody disputes this fact."¹¹²

91. Also in 1991, Shell produced a film called "Climate of Concern." The film advises that while "no two [climate change projection] scenarios fully agree, . . . [they] have each prompted the same serious warning. A warning endorsed by a uniquely broad consensus of scientists in their report to the UN at the end of 1990." The warning referred to was of an increasing frequency of

¹⁰⁹ See Stephen Lonergan & Kathy Young, An Assessment of the Effects of Climate Warming on Energy Developments in the Mackenzie River Valley and Delta, Canadian Arctic, 7 Energy Exploration & Exploitation 359–81 (1989).

¹¹⁰ Id. at 369, 376.

¹¹¹ Id. at 360, 377–78.

¹¹² Ronald C. Kramer, Carbon Criminals, Climate Crimes 66 (1st ed. 2020).

abnormal weather, and of sea-level rise of about one meter over the coming century. Shell specifically described the impacts of anthropogenic sea-level rise on tropical islands, “barely afloat even now, . . . [f]irst made uninhabitable and then obliterated beneath the waves. Wetland habitats destroyed by intruding salt. Coastal lowlands suffering pollution of precious groundwater.” It warned of “greenhouse refugees,” people who abandoned homelands inundated by the sea, or displaced because of catastrophic changes to the environment. The video concludes with a stark admonition: “Global warming is not yet certain, but many think that the wait for final proof would be irresponsible. Action now is seen as the only safe insurance.”¹¹³

92. Also in 1991, BP released a short film called “The Earth – What Makes Weather?” In it, a narrator states: “Our . . . dependence on carbon-based fuels is now a cause for concern. When coal, oil or gas are burned, they release carbon dioxide and other reactive gases.” The narrator then went on to explain:

As the earth gives off heat, carbon dioxide, together with water vapor, absorbs and radiates it back, acting like a blanket. . . . If world population growth is matched by energy consumption, even more carbon dioxide will be released, making this greenhouse effect even stronger. An overall increase in temperature of even a few degrees could disrupt our climate with devastating consequences. If the oceans got warmer and the ice sheets began to melt, sea levels would rise, encroaching on coastal lowlands. From warmer seas, more water would evaporate, making storms and the havoc they cause more frequent. . . . Catastrophic floods could become commonplace, and low-lying countries like Bangladesh would be defenseless against them. Too much water or too little. Away from the coasts we could see a return to the conditions which devastated America’s Midwest in the 1930s. Global warming could repeat on a more disastrous scale the dustbowl phenomenon which virtually destroyed farming on the Great Plains. . . . The threat of such climatic change is now one of our most urgent concerns.¹¹⁴

¹¹³ Jelmer Mommers, Shell Made a Film About Climate Change in 1991 (Then Neglected To Heed Its Own Warning), de Correspondent (Feb. 27, 2017), <https://thecorrespondent.com/6285/shell-made-a-film-about-climate-change-in-1991-then-neglected-to-heed-its-own-warning>.

¹¹⁴ Vatan Hüzeir, BP Knew the Truth About Climate Change 30 Years Ago, Follow the Money (May 26, 2020), <https://www.ftm.nl/artikelen/bp-video-climate-change-1990-engels>; see also BP Video Library, This Earth – What Makes Weather? (1991), <https://www.bpvideolibrary.com/record/463>.

The film was not widely distributed.

93. The fossil fuel industry was at the forefront of carbon dioxide research for much of the latter half of the twentieth century. It developed cutting edge and innovative technology and worked with many of the field's top researchers to produce exceptionally sophisticated studies and models. For instance, in the mid-1990s, Shell began using scenarios to plan how the company could respond to various global forces in the future. In one scenario published in a 1998 internal report, Shell paints an eerily prescient scene:

In 2010, a series of violent storms causes extensive damage to the eastern coast of the U.S. Although it is not clear whether the storms are caused by climate change, people are not willing to take further chances. The insurance industry refuses to accept liability, setting off a fierce debate over who is liable: the insurance industry or the government. After all, two successive IPCC reports since 1993 have reinforced the human connection to climate change . . . Following the storms, a coalition of environmental NGOs brings a class-action suit against the US government and fossil-fuel companies on the grounds of neglecting what scientists (including their own) have been saying for years: that something must be done. A social reaction to the use of fossil fuels grows, and individuals become 'vigilante environmentalists' in the same way, a generation earlier, they had become fiercely anti-tobacco. Direct-action campaigns against companies escalate. Young consumers, especially, demand action.¹¹⁵

94. Fossil fuel companies did not just consider climate change impacts in scenarios. In the mid-1990s, ExxonMobil, Shell, and Imperial Oil (ExxonMobil) jointly undertook the Sable Offshore Energy Project in Nova Scotia. The project's own Environmental Impact Statement declared, "The impact of a global warming sea-level rise may be particularly significant in Nova Scotia. The long-term tide gauge records at a number of locations along the N.S. coast have shown sea level has been rising over the past century. . . . For the design of coastal and offshore structures,

¹¹⁵ Royal Dutch/Shell Group, Group Scenarios 1998–2020 115, 122 (1998), <http://www.documentcloud.org/documents/4430277-27-1-Compiled.html>.

an estimated rise in water level, due to global warming, of 0.5 m [1.64 feet] may be assumed for the proposed project life (25 years).”¹¹⁶

95. Climate change research conducted by Defendants and their industry associations frequently acknowledged uncertainties in their climate modeling. Those uncertainties, however, were merely with respect to the magnitude and timing of climate impacts resulting from fossil fuel consumption, not that significant changes would eventually occur. Defendants’ researchers and the researchers at their industry associations harbored little doubt that climate change was occurring and that fossil fuel products were, and are, the primary cause.

96. Despite the overwhelming information about the threats to people and the planet posed by continued unabated use of their fossil fuel products, Fossil Fuel Defendants failed to act as they reasonably should have to mitigate or avoid those dire adverse impacts. Fossil Fuel Defendants instead adopted the position, as described below, that they had a license to continue the unfettered pursuit of profits from those products. This position was an abdication of Fossil Fuel Defendants’ responsibility to consumers and the public, including the State, to act on their unique knowledge of the reasonably foreseeable hazards of unabated production and consumption of their fossil fuel products.

C. Defendants Did Not Disclose Known Harms Associated with the Extraction, Promotion, and Consumption of Their Fossil Fuel Products, and Instead Affirmatively Acted to Obscure Those Harms and Engaged in a Campaign to Deceptively Protect and Expand the Use of Their Fossil Fuel Products.

97. By 1988, Defendants had amassed a compelling body of knowledge about the role of anthropogenic greenhouse gases, specifically those emitted from the normal use of fossil fuel products, in causing global warming and its cascading impacts, including disruptions to the

¹¹⁶ ExxonMobil, Sable Project Development Plan, vol. 3, 4-77, <http://soep.com/about-the-project/development-plan-application>.

hydrologic cycle, extreme precipitation, drought, heat waves, and associated consequences for human communities and the environment. On notice that their products were causing global climate change and dire effects on the planet, Fossil Fuel Defendants and API faced the decision of whether to take steps to limit the damages fossil fuel products were causing and would continue to cause Earth's inhabitants, including the people of New Jersey.

98. Before or thereafter, Defendants could and reasonably should have taken any number of steps to mitigate the damages caused by fossil fuel products. Their own comments reveal an awareness of what steps should have been taken. Defendants should have warned civil society and New Jersey consumers of the dangers known to Defendants of the unabated consumption of fossil fuel products, and they could and should have taken reasonable steps to limit the potential greenhouse gas emissions emitted by consumption of their products. Simply put, Defendants should have issued warnings commensurate with their own understanding of the risks posed by expected and intended uses of their products.

99. Several key events during the period between 1988 and 1992 appear to have prompted Defendants to change their tactics from general research and internal discussion on climate change to a public campaign aimed at deceiving consumers and the public, including those in New Jersey. These include:

a. In 1988, National Aeronautics and Space Administration ("NASA") scientists confirmed that human activities were actually contributing to global warming.¹¹⁷ On June 23 of that year, NASA scientist James Hansen's presentation of this information to Congress

¹¹⁷ See Peter C. Frumhoff et al., The Climate Responsibilities of Industrial Carbon Producers, 132 Climatic Change 161 (2015).

engendered significant news coverage and publicity for the announcement, including coverage on the front page of The New York Times.

b. On July 28, 1988, Senator Robert Stafford and four bipartisan co-sponsors introduced S. 2666, “The Global Environmental Protection Act,” to regulate CO₂ and other greenhouse gases. Four more bipartisan bills to significantly reduce CO₂ pollution were introduced over the following ten weeks, and in August, U.S. Presidential candidate George H.W. Bush pledged that his presidency would combat the greenhouse effect with “the White House effect.”¹¹⁸ Political will in the United States to reduce anthropogenic greenhouse gas emissions and mitigate the harms associated with Defendants’ fossil fuel products was gaining momentum.

c. In December 1988, the United Nations formed the IPCC, a scientific panel dedicated to providing the world’s governments with an objective, scientific analysis of climate change and its environmental, political, and economic impacts.

d. In 1990, the IPCC published its First Assessment Report on anthropogenic climate change,¹¹⁹ which concluded that (1) “there is a natural greenhouse effect which already keeps the Earth warmer than it would otherwise be,” and (2) that

emissions resulting from human activities are substantially increasing the atmospheric concentrations of the greenhouse gases carbon dioxide, methane, chlorofluorocarbons (CFCs) and nitrous oxide. These increases will enhance the greenhouse effect, resulting on average in an additional warming of the Earth’s surface. The main greenhouse gas, water vapour, will increase in response to global warming and further enhance it.¹²⁰

¹¹⁸ The White House and the Greenhouse, N.Y. Times (May 9, 1989), <http://www.nytimes.com/1989/05/09/opinion/the-white-house-and-the-greenhouse.html>.

¹¹⁹ See IPCC, Reports, ipcc.ch/reports.

¹²⁰ IPCC, Climate Change: The IPCC Scientific Assessment xi (1990), <https://www.ipcc.ch/report/climate-change-the-ipcc-1990-and-1992-assessments>.

The IPCC reconfirmed those conclusions in a 1992 supplement to the First Assessment Report.¹²¹

e. The United Nations began preparing for the 1992 Earth Summit in Rio de Janeiro, Brazil, a major, newsworthy gathering of 172 world governments, of which 116 sent their heads of state. The Summit resulted in the United Nations Framework Convention on Climate Change (“UNFCCC”), an international environmental treaty providing protocols for future negotiations aimed at “stabiliz[ing] greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system.”¹²²

100. Those world events marked a shift in public discussion of climate change, and the initiation of international efforts to curb anthropogenic greenhouse emissions—developments that had stark implications for, and would have diminished the profitability of, Defendants’ fossil fuel products.

101. Rather than collaborating with the international community by acting to forestall, or at least decrease, fossil fuel products’ contributions to global warming and its impacts, including sea-level rise, disruptions to the hydrologic cycle, and associated consequences to New Jersey and other communities, Defendants embarked on a decades-long campaign designed to perpetuate and maximize continued dependence on fossil fuel products.

102. Defendants’ campaign, which focused on concealing, discrediting, and/or misrepresenting information that tended to support restricting consumption of (and thereby decreasing demand for) Defendants’ fossil fuel products, and of transitioning society to a lower-carbon footprint and future, took several forms. The campaign enabled Fossil Fuel Defendants to

¹²¹ IPCC, 1992 IPCC Supplement to the First Assessment Report (1992), <https://www.ipcc.ch/report/climate-change-the-ipcc-1990-and-1992-assessments>.

¹²² United Nations, United Nations Framework Convention on Climate Change art. 2 (1992), <https://unfccc.int/resource/docs/convkp/conveng.pdf>.

accelerate their business practice of exploiting fossil fuel reserves and concurrently externalize the social and environmental costs of their fossil fuel products. Those activities directly contradicted Defendants' own prior recognition that the science of anthropogenic climate change was clear and that action was needed to avoid or mitigate dire consequences to the planet and communities like the State's.

103. Fossil Fuel Defendants—on their own and jointly through industry and front groups such as API, the Information Council for the Environment (“ICE”), and the Global Climate Coalition (“GCC”)—funded, conceived, planned, and carried out a sustained and widespread campaign of denial and disinformation about the existence of climate change and their products' contribution to it. The campaign included a long-term pattern of direct misrepresentations and material omissions to consumers, as well as a plan to influence consumers indirectly by affecting public opinion through the dissemination of misleading research to the press, government, and academia. Although Fossil Fuel Defendants were competitors in the marketplace, they combined and collaborated with each other and with API on this public campaign to misdirect and stifle public knowledge in order to increase sales and protect profits. The effort included promoting hazardous fossil fuel products through advertising campaigns that failed to warn of the existential risks associated with the use of those products, and that were designed to influence consumers to continue using Fossil Fuel Defendants' fossil fuel products irrespective of those products' damage to communities and the environment.

104. For example, in 1988, Joseph Carlson, an Exxon public affairs manager, stated in an internal memo that Exxon “is providing leadership through API in developing the petroleum

industry position” on “the greenhouse effect.”¹²³ He then went on to describe the “Exxon Position,” which included two important messaging tenets among others: (1) “[e]mphasize the uncertainty in scientific conclusions regarding the potential enhanced Greenhouse Effect”; and (2) “[r]esist the overstatement and sensationalization [sic] of potential greenhouse effect which could lead to noneconomic development of nonfossil fuel resources.”¹²⁴

105. Reflecting on his time as an Exxon consultant in the 1980s, Professor Martin Hoffert, a former New York University physicist who researched climate change, expressed regret over Exxon’s “climate science denial program campaign” in his sworn testimony before Congress:

[O]ur research [at Exxon] was consistent with findings of the United Nations Intergovernmental Panel on Climate Change on human impacts of fossil fuel burning, which is that they are increasingly having a perceptible influence on Earth’s climate. . . . If anything, adverse climate change from elevated CO₂ is proceeding faster than the average of the prior IPCC mild projections and fully consistent with what we knew back in the early 1980’s at Exxon. . . . I was greatly distressed by the climate science denial program campaign that Exxon’s front office launched around the time I stopped working as a consultant—but not collaborator—for Exxon. The advertisements that Exxon ran in major newspapers raising doubt about climate change were contradicted by the scientific work we had done and continue to do. Exxon was publicly promoting views that its own scientists knew were wrong, and we knew that because we were the major group working on this.¹²⁵

106. A 1994 Shell report entitled “The Enhanced Greenhouse Effect: A Review of the Scientific Aspects” by Royal Dutch Shell environmental advisor Peter Langcake stands in stark contrast to the company’s 1988 report on the same topic. Whereas before the authors recommended

¹²³ Memorandum from Joseph M. Carlson, The Greenhouse Effect (Aug. 3, 1988), <https://assets.documentcloud.org/documents/3024180/1998-Exxon-Memo-on-the-Greenhouse-Effect.pdf>.

¹²⁴ Ibid.

¹²⁵ Examining the Oil Industry’s Efforts to Suppress the Truth About Climate Change, Hearing Before the Subcomm. on Civil Rights and Civil Liberties of the Comm. on Oversight and Reform, 116th Cong. 7–8 (Oct. 23, 2019) (statement of Martin Hoffert, Former Exxon Consultant, Professor Emeritus, Physics, New York University), <https://oversight.house.gov/legislation/hearings/examining-the-oil-industry-s-efforts-to-suppress-the-truth-about-climate-change>.

consideration of policy solutions early on, Langcake warned of the potentially dramatic “economic effects of ill-advised policy measures.” While the report recognized the IPCC conclusions as the mainstream view, Langcake still emphasized scientific uncertainty, noting, for example, that “the postulated link between any observed temperature rise and human activities has to be seen in relation to natural variability, which is still largely unpredictable.” The Shell position is stated clearly in the report: “Scientific uncertainty and the evolution of energy systems indicate that policies to curb greenhouse gas emissions beyond ‘no regrets’ measures could be premature, divert resources from more pressing needs and further distort markets.”¹²⁶

107. In 1991, the ICE, whose members included affiliates, predecessors and/or subsidiaries of Fossil Fuel Defendants, launched a national climate change science denial campaign with full-page newspaper ads, radio commercials, a public relations tour schedule, “mailers,” and research tools to measure campaign success. Included among the campaign strategies was to “reposition global warming as theory (not fact).” Its target audience included older less-educated males who are “predisposed to favor the ICE agenda, and likely to be even more supportive of that agenda following exposure to new info.”¹²⁷

108. A goal of ICE’s advertising campaign was to change public opinion and consumer perceptions of climate risk. A memo from Richard Lawson, president of the National Coal Association, a predecessor to the National Mining Association, asked members to contribute to

¹²⁶ P. Langcake, Shell Internationale Petroleum, The Enhanced Greenhouse Effect: A Review of the Scientific Aspects (Dec. 1994), <https://www.documentcloud.org/documents/4411099-Documents11.html#document/p15/a411511>.

¹²⁷ Union of Concerned Scientists, Deception Dossier #5: Coal’s “Information Council on the Environment” Sham (1991), http://www.ucsusa.org/sites/default/files/attach/2015/07/Climate-Deception-Dossier-5_ICE.pdf.

the ICE campaign because “policymakers are prepared to act [on global warming]. Public opinion polls reveal that 60% of the American people already believe global warming is a serious environmental problem. Our industry cannot sit on the sidelines in this debate.”¹²⁸

109. The following images are examples of ICE-funded print advertisements challenging the validity of climate science and intended to obscure the scientific consensus on anthropogenic climate change.¹²⁹



Figure 8: Information Council for the Environment Advertisements

110. In 1996, Exxon released a publication called “Global Warming: Who’s Right? Facts about a debate that’s turned up more questions than answers.” In the publication’s preface, Exxon CEO Lee Raymond inaccurately stated that “taking drastic action immediately is

¹²⁸ Naomi Oreskes, My Facts Are Better Than Your Facts: Spreading Good News About Global Warming (2010), in Peter Howlett et al., How Well Do Facts Travel?: The Dissemination of Reliable Knowledge 136–66 (Cambridge University Press, 2011).

¹²⁹ Union of Concerned Scientists, Deception Dossier #5: Coal’s “Information Council on the Environment” Sham at 47-49 (1991), http://www.ucsusa.org/sites/default/files/attach/2015/07/Climate-Deception-Dossier-5_ICE.pdf.

unnecessary since many scientists agree there's ample time to better understand the climate system." The publication described the greenhouse effect as "unquestionably real and definitely a good thing," while ignoring the severe consequences that would result from the influence of the increased CO₂ concentration on the Earth's climate. Instead, it characterized the greenhouse effect as simply "what makes the earth's atmosphere livable." Directly contradicting Exxon's own internal knowledge and peer-reviewed science, the publication ascribed the rise in temperature since the late nineteenth century to "natural fluctuations that occur over long periods of time" rather than to the anthropogenic emissions that Exxon itself and other scientists had confirmed were responsible. The publication also falsely challenged the computer models that projected the future impacts of unabated fossil fuel product consumption, including those developed by Exxon's own employees, as having been "proved to be inaccurate." The publication contradicted the numerous reports prepared by and circulated among Exxon's staff, and by API, stating that "the indications are that a warmer world would be far more benign than many imagine . . . moderate warming would reduce mortality rates in the US, so a slightly warmer climate would be more healthful." Raymond concluded his preface by attacking advocates for limiting the use of his company's fossil fuel products as "drawing on bad science, faulty logic, or unrealistic assumptions"—despite the important role that Exxon's own scientists had played in compiling those same scientific underpinnings.¹³⁰

111. API published an extensive report in the same year warning against concern over CO₂ buildup and any need to curb consumption or regulate the fossil fuel industry. The introduction stated that "there is no persuasive basis for forcing Americans to dramatically change

¹³⁰ Exxon Corp., Global Warming: Who's Right? (1996), <https://www.documentcloud.org/documents/2805542-Exxon-Global-Warming-Whos-Right.html>.

their lifestyles to use less oil.” The authors discouraged the further development of certain alternative energy sources, writing that “government agencies have advocated the increased use of ethanol and the electric car, without the facts to support the assertion that either is superior to existing fuels and technologies” and that “policies that mandate replacing oil with specific alternative fuel technologies freeze progress at the current level of technology, and reduce the chance that innovation will develop better solutions.” The paper also denied the human connection to climate change, by falsely stating that no “scientific evidence exists that human activities are significantly affecting sea levels, rainfall, surface temperatures or the intensity and frequency of storms.” The report’s message was false but clear: “Facts don’t support the arguments for restraining oil use.”¹³¹

112. In a speech presented at the World Petroleum Congress in Beijing in 1997 at which many of the Defendants were present, Exxon CEO Lee Raymond reiterated those views. This time, he presented a false dichotomy between stable energy markets and abatement of the marketing, promotion, and sale of fossil fuel products Defendants knew to be hazardous. He stated:

Some people who argue that we should drastically curtail our use of fossil fuels for environmental reasons . . . my belief [is] that such proposals are neither prudent nor practical. With no readily available economic alternatives on the horizon, fossil fuels will continue to supply most of the world’s and this region’s energy for the foreseeable future.

Governments also need to provide a stable investment climate . . . They should avoid the temptation to intervene in energy markets in ways that give advantage to one competitor over another or one fuel over another.

We also have to keep in mind that most of the greenhouse effect comes from natural sources . . . Leaping to radically cut this tiny sliver of the greenhouse pie on the premise that it will affect climate defies common sense and lacks foundation in our current understanding of the climate system.

¹³¹ Sally Brain Gentile et al., Reinventing Energy: Making the Right Choices, American Petroleum Institute (1996), <http://www.climatefiles.com/trade-group/american-petroleum-institute/1996-reinventing-energy>.

Let's agree there's a lot we really don't know about how climate will change in the 21st century and beyond . . . It is highly unlikely that the temperature in the middle of the next century will be significantly affected whether policies are enacted now or 20 years from now. It's bad public policy to impose very costly regulations and restrictions when their need has yet to be proven.¹³²

113. Imperial Oil (ExxonMobil) CEO Robert Peterson falsely denied the established connection between Defendants' fossil fuel products and anthropogenic climate change in the Summer 1998 Imperial Oil Review, "A Cleaner Canada:"

[T]his issue [referring to climate change] has absolutely nothing to do with pollution and air quality. Carbon dioxide is not a pollutant but an essential ingredient of life on this planet. . . . [T]he question of whether or not the trapping of 'greenhouse' gases will result in the planet's getting warmer . . . has no connection whatsoever with our day-to-day weather.

There is absolutely no agreement among climatologists on whether or not the planet is getting warmer, or, if it is, on whether the warming is the result of man-made factors or natural variations in the climate. . . . I feel very safe in saying that the view that burning fossil fuels will result in global climate change remains an unproved hypothesis.¹³³

114. Mobil (ExxonMobil) paid for a series of "advertorials," advertisements located in the editorial section of The New York Times and meant to look like editorials rather than paid ads. Many of those advertorials communicated doubt about the reality and severity of human-caused climate change, even as industry scientists contemporaneously concluded that climate change was real, serious, and caused by human activity. The ads addressed various aspects of the public discussion of climate change and sought to undermine the justifications for tackling greenhouse

¹³² Lee R. Raymond, Chairman and Chief Executive Officer, Exxon Corp., Address at the World Petroleum Congress (Oct. 13, 1997), <https://assets.documentcloud.org/documents/2840902/1997-Lee-Raymond-Speech-at-China-World-Petroleum.pdf>.

¹³³ Robert Peterson, A Cleaner Canada in Imperial Oil Review (1998), <https://www.desmogblog.com/sites/beta.desmogblog.com/files/A%20Cleaner%20Canada%20Imperial%20Oil.pdf>.

gas emissions as unsettled science. The 1997 advertorial below¹³⁴ argued that economic analysis of emissions restrictions was faulty and inconclusive and therefore a justification for delaying action on climate change.

¹³⁴ Mobil, When Facts Don't Square with the Theory, Throw Out the Facts, N.Y. Times A31 (Aug. 14, 1997), <https://www.documentcloud.org/documents/705550-mob-nyt-1997-aug-14-whenfactsdonsquare.html>.

the race,

But when we no longer allow those choices, both civility and common sense will have been diminished. □

who was dragged from his sister's car by police officers and shot in the face at point-blank range. The cops

who have the power to do something about those officers, but choose not to. □

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When facts don't square with the theory, throw out the facts



That seems to characterize the administration's attitude on two of its own studies which show that international efforts to curb global warming could spark a big run-up in energy prices.

For months, the administration—playing its cards close to the vest—has promised to provide details of the emission reduction plan it will put on the table at the climate change meeting in Kyoto, Japan, later this year. It also promised to evaluate the economics of that policy and measure its impact. Those results are important because the proposals submitted by other countries thus far would be disruptive and costly to the U.S. economy.

Yet, when the results from its own economic models were finally generated, the administration started distancing itself from the findings and models that produced them. The administration's top economic advisor said that economic models can't provide a "definitive answer" on the impact of controlling emissions. The effort, she said, was "futile." At best, the models can only provide a "range of potential impacts."

Frankly, we're puzzled. The White House has promised to lay the economic facts before the public. Yet, the administration's top advisor said such an analysis won't be based on models and it will "preclude...detailed numbers." If you don't provide numbers and don't rely on models, what kind of rigorous economic examination can Congress and the public expect?

We're also puzzled by ambivalence over models. The administration downplays the utility of economic models to forecast cost impacts 10–15 years from now, yet its negotiators accept as gospel the 50–100-year predictions of global warming that have been generated by climate models—many of which have been criticized as seriously flawed.

The second study, conducted by Argonne National Laboratory under a contract with the Energy Department, examined what would

happen if the U.S. had to commit to higher energy prices under the emission reduction plans that several nations had advanced last year. Such increases, the report concluded, would result in "significant reductions in output and employment" in six industries—aluminum, cement, chemical, paper and pulp, petroleum refining and steel.

Hit hardest, the study noted, would be the chemical industry, with estimates that up to 30 percent of U.S. chemical manufacturing capacity would move offshore to developing countries. Job losses could amount to some 200,000 in that industry, with another 100,000 in the steel sector. And despite the substantial loss of U.S. jobs and manufacturing capacity, the net emission reduction could be insignificant since developing countries will not be bound by the emission targets of a global warming treaty.

Downplaying Argonne's findings, the Energy Department noted that the study used outdated energy prices (mid-1990s), didn't reflect the gains that would come from international emissions trading and failed to factor in the benefits of accelerated developments in energy efficiency and low-carbon technologies.

What it failed to mention is just what these new technologies are and when we can expect their benefits to kick in. As for emissions trading, many economists have theorized about the role they could play in reducing emissions, but few have grappled with the practicality of implementing and policing such a scheme.

We applaud the goals the U.S. wants to achieve in these upcoming negotiations—namely, that a final agreement must be "flexible, cost-effective, realistic, achievable and ultimately global in scope." But until we see the details of the administration's policy, we are concerned that plans are being developed in the absence of rigorous economic analysis. Too much is at stake to simply ignore facts that don't square with preconceived theories.

Mobil The energy
to make a difference.

<http://www.mobil.com>

©1997 Mobil Corporation

Figure 9: 1997 Mobil Advertorial

115. Many other Exxon and Mobil advertorials falsely or misleadingly characterized the state of climate science research to the readership of The New York Times' op-ed page. A sample of these untruthful statements includes:

- “We don’t know enough about the factors that affect global warming and the degree to which—if any—that man-made emissions (namely, carbon dioxide) contribute to increases in Earth’s temperature.”¹³⁵
- “[G]reenhouse-gas emissions, which have a warming effect, are offset by another combustion product—particulates—which leads to cooling.”¹³⁶
- “Even after two decades of progress, climatologists are still uncertain how—or even if—the buildup of man-made greenhouse gases is linked to global warming. It could be at least a decade before climate models will be able to link greenhouse warming unambiguously to human actions. Important answers on the science lie ahead.”¹³⁷
- “[I]t is impossible for scientists to attribute the recent small surface temperature increases to human causes.”¹³⁸

116. A quantitative analysis of ExxonMobil’s climate communications between 1989 and 2004 found that, while 83% of the company’s peer-reviewed papers and 80% of its internal documents acknowledged the reality and human origins of climate change, 81% of its advertorials

¹³⁵ Mobil, Climate Change: A Prudent Approach, in N.Y. Times (Nov. 13, 1997), <https://www.documentcloud.org/documents/705548-mob-nyt-1997-11-13-climateprudentapproach.html>.

¹³⁶ Mobil, Less Heat, More Light on Climate Change (July 18, 1996), <https://www.documentcloud.org/documents/705544-mob-nyt-1996-jul-18-lessheatmorelight.html>.

¹³⁷ Mobil, Climate Change: Where We Come Out, in N.Y. Times (Nov. 20, 1997), <https://www.documentcloud.org/documents/705549-mob-nyt-1997-11-20-ccwherewecomeout.html>.

¹³⁸ ExxonMobil, Unsettled Science (Mar. 23, 2000), reproduced in <https://www.theguardian.com/environment/2021/nov/18/the-forgotten-oil-ads-that-told-us-climate-change-was-nothing>.

communicated doubt about those conclusions.¹³⁹ ExxonMobil’s tendency to contradict its own peer-reviewed research in statements meant for lay audiences also appeared at a year-to-year scale. Based on this “statistically significant” discrepancy between internal and external communications, the authors concluded that “ExxonMobil misled the public.”¹⁴⁰

117. Fossil Fuel Defendants—individually and through API, other trade associations, and various front groups—mounted a deceptive public campaign in order to continue wrongfully promoting and marketing their fossil fuel products, despite their own knowledge and the growing national and international scientific consensus about the hazards of doing so.

118. One of the key organizations formed by Fossil Fuel Defendants to coordinate the fossil fuel industry’s response to the world’s growing awareness of climate change was the International Petroleum Industry Environmental Conservation Association (“IPIECA”). In 1987, the IPIECA formed a “Working Group on Global Climate Change” chaired by Duane LeVine, Exxon’s manager for science and strategy development. The Working Group also included Brian Flannery from Exxon, Leonard Bernstein from Mobil, Terry Yosie from API, and representatives from BP, Shell, and Texaco (Chevron). In 1990, the Working Group sent a strategy memo created by LeVine to hundreds of oil companies around the world, including Defendants. This memo explained that, to forestall a global shift away from burning fossil fuels for energy, the industry should emphasize uncertainties in climate science, call for further research, and promote industry-friendly policies that would leave the fossil fuel business intact.¹⁴¹

¹³⁹ Geoffrey Supran & Naomi Oreskes, Assessing ExxonMobil’s Climate Change Communications (1977–2014), 12 Envtl. Research Letters, IOP Publishing Ltd. 12 (2017), <https://iopscience.iop.org/article/10.1088/1748-9326/aa815f/pdf>.

¹⁴⁰ Ibid.

¹⁴¹ Benjamin A. Franta, Big Carbon’s Strategic Response to Global Warming, 1950-2020 140 (2022), <https://purl.stanford.edu/hq437ph9153>.

119. The Global Climate Coalition (“GCC”), on behalf of Defendants and other fossil fuel companies, also funded deceptive advertising campaigns and distributed misleading material to generate public uncertainty around the climate debate, seeking to prevent U.S. adoption of the Kyoto Protocol and thereby inflate the market for fossil fuels, despite the leading role that the U.S. had played in negotiating the Protocol.¹⁴² Created in 1989, the GCC’s founding members included Defendants Exxon, Shell, Phillips Petroleum Company (ConocoPhillips), and API. Defendants BP and Chevron also participated as members of the GCC. Its position on climate change contradicted decades of its members’ internal scientific reports by asserting that natural trends, not human combustion of fossil fuels, was responsible for rising global temperatures:

The GCC believes that the preponderance of the evidence indicates that most, if not all, of the observed warming is part of [a] natural warming trend which began approximately 400 years ago. If there is an anthropogenic component to this observed warming, the GCC believes that it must be very small and must be superimposed on a much larger natural warming trend.¹⁴³

120. The GCC’s promotion of overt climate change skepticism also contravened its internal assessment that such theories lacked scientific support. Despite an internal primer acknowledging that various “contrarian theories” (i.e., climate change skepticism) do not “offer convincing arguments against the conventional model of greenhouse gas emission-induced climate change,” the GCC excluded this section from the publicly released version of the backgrounder¹⁴⁴ and instead funded and promoted some of those same contrarian theories. Between 1989 and 1998,

¹⁴² Ibid.

¹⁴³ Global Climate Coalition, Global Climate Coalition: An Overview 2 (Nov. 1996), <http://www.climatefiles.com/denial-groups/global-climatecoalition-collection/1996-global-climate-coalition-overview/>.

¹⁴⁴ Memorandum from Gregory J. Dana, Assoc. of Int’l Auto. Mfrs., to AIAM Technical Committee, Global Climate Coalition (GCC) - Primer on Climate Change Science - Final Draft (Jan. 18, 1996), <http://www.webcitation.org/6FyqHawb9>.

the GCC spent \$13 million on advertisements as part of a campaign to obfuscate the public's understanding of climate science and undermine its trust in climate scientists.¹⁴⁵

121. For example, in a 1994 report, the GCC stated that “observations have not yet confirmed evidence of global warming that can be attributed to human activities,” that “[t]he claim that serious impacts from climate change have occurred or will occur in the future simply has not been proven,” so “there is no basis for the design of effective policy action that would eliminate the potential for climate change.”¹⁴⁶ In 1995, the GCC published a booklet called “Climate Change: Your Passport to the Facts,” which stated, “While many warnings have reached the popular press about the consequences of a potential man-made warming of the Earth’s atmosphere during the next 100 years, there remains no scientific evidence that such a dangerous warming will actually occur.”¹⁴⁷

122. In 1997, William O’Keefe, chairman of the GCC and executive vice president of API, falsely wrote in a Washington Post op-ed, “[c]limate scientists don’t say that burning oil, gas, and coal is steadily warming the earth.”¹⁴⁸ This statement contradicted the established scientific consensus as well as Defendants’ own knowledge. Yet Defendants did nothing to correct the public record, and instead continued to fund the GCC’s anti-scientific climate skepticism.

¹⁴⁵ Wendy E. Franz, Kennedy School of Government, Harvard University, Science, Skeptics and Non-State Actors in the Greenhouse, ENRP Discussion Paper E-98-18 13 (Sept. 1998), <https://www.belfercenter.org/sites/default/files/legacy/files/Science%20Skeptics%20and%20Non-State%20Actors%20in%20the%20Greenhouse%20-%20E-98-18.pdf>.

¹⁴⁶ GCC, Issues and Options: Potential Global Climate Change, Climate Files (1994), <http://www.climatefiles.com/denial-groups/global-climate-coalition-collection/1994-potential-global-climate-change-issues>.

¹⁴⁷ GCC, Climate Change: Your Passport to the Facts, Climate Files (1995), <http://www.climatefiles.com/denial-groups/global-climate-coalition-collection/1995-climate-change-facts-passport>.

¹⁴⁸ William O’Keefe, A Climate Policy, in The Washington Post (July 5, 1997), <https://www.washingtonpost.com/archive/opinions/1997/07/05/a-climate-policy/6a11899a-c020-4d59-a185-b0e7eebf19cc/>.

123. In addition to publicly spreading false and misleading information about the climate science consensus, the GCC also sought to undermine credible climate science from within the IPCC. After becoming a reviewer of IPCC’s Second Assessment Report in 1996, the GCC used its position to accuse the convening author of a key chapter in the Report of modifying its conclusions. The GCC claimed that the author, climatologist Ben Santer, had engaged in “scientific cleansing” that “understate[d] uncertainties about climate change causes and effect . . . to increase the apparent scientific support for attribution of changes to climate to human activities.”¹⁴⁹ The GCC also arranged to spread the accusation among legislators, reporters, editors of scientific journals, and even the op-ed page of the Wall Street Journal.¹⁵⁰ This effort “was widely perceived to be an attempt on the part of the GCC to undermine the credibility of the IPCC.”¹⁵¹

124. In the late 1990s, Defendants shifted away from openly denying anthropogenic warming toward peddling a subtler form of climate change skepticism. Defendants became alarmed by the enormous legal judgments Big Tobacco now faced as a result of decades spent publicly denying the health risks of smoking cigarettes, with a Shell employee explaining that the company “didn’t want to fall into the same trap as the tobacco companies who have become trapped in all their lies.”¹⁵² Defendants began to shift their communications strategy, claiming they had accepted climate science all along.¹⁵³ Several large fossil fuel companies, including BP and

¹⁴⁹ Franz, Science, Skeptics and Non-State Actors in the Greenhouse at 14.

¹⁵⁰ Naomi Oreskes & Erik Conway, Merchants of Doubt: How a Handful of Scientists Obscured the Truth on Issues from Tobacco Smoke to Global Warming, New York: Bloomsbury Press 205–13 (2011). See also S. Fred Singer, Climate Change and Consensus, Science vol. 271, no. 5249 (Feb. 2, 1996); Frederick Seitz, A Major Deception on 'Global Warming', Wall Street Journal (June 12, 1996).

¹⁵¹ Franz, Science, Skeptics, and Non-State Actors in the Greenhouse at 15.

¹⁵² Nathaniel Rich, Losing Earth: A Recent History, London: Picador 186 (2020).

¹⁵³ Franta, Big Carbon’s Strategic Response to Global Warming, 1950-2020 at 170.

Shell, left the GCC (although all Fossil Fuel Defendants remained members of API).¹⁵⁴ At this point in time, Defendants publicly claimed to accept the reality of anthropogenic climate change while insisting that the costs of climate action were unacceptably high in light of the yet-unresolved uncertainties in climate science—especially around the severity and timeframe of future climate impacts. Reflecting this new strategy, API Executive Vice President (and GCC spokesman) William O’Keefe announced in November 1998 that “[w]e are committed to being part of the solution to the climate risk and to active participation in the debate to forge a clear, defensible policy.” “[T]he debate is not about action or inaction,” O’Keefe wrote, “but what set of actions is consistent with our state of knowledge and economic well-being.”¹⁵⁵ Rather than publicly deny the need to address climate change, Defendants’ new communications strategy sought to forestall policy actions that might decrease consumption of fossil fuel products.

125. Despite their public about-face, Defendants surreptitiously continued to organize and fund programs designed to deceive the public about the weight and veracity of the climate science consensus. In 1998, API convened a Global Climate Science Communications Team (“GCSCT”) whose members included Exxon’s senior environmental lobbyist, an API public relations representative, and representatives from Chevron. There were no scientists on the “Global Climate Science Communications Team.” Steve Milloy (a key player in the tobacco industry’s front group) and his organization, The Advancement of Sound Science Coalition (“TASSC”), were founding members of the GCSCT. TASSC was a fake grassroots citizen group created by the tobacco industry to sow uncertainty by discrediting the scientific link between exposure to second-hand cigarette smoke and increased rates of cancer and heart disease. Philip Morris had launched

¹⁵⁴ Id. at 177.

¹⁵⁵ API: U.S. oil industry recognizes climate change risk, Oil & Gas Journal 28 (Nov. 2, 1998).

TASSC on the advice of its public relations firm, which advised Philip Morris that the tobacco company itself would not be a credible voice on the issue of smoking and public health. TASSC, through API and with the approval of Fossil Fuel Defendants, also became a front group for the fossil fuel industry, using the same tactics it had honed while operating on behalf of tobacco companies to spread doubt about climate science. Although TASSC posed as a grassroots group of concerned citizens, it was funded by Defendants. For example, between 2000 and 2004, Exxon donated \$50,000 to Milloy's Advancement of Sound Science Center; and an additional \$60,000 to the Free Enterprise Education Institute and \$50,000 to the Free Enterprise Action Institute, both of which were registered to Milloy's home address.¹⁵⁶ The GCSCCT represented a continuation of Defendants' concerted actions to sow doubt and confusion about climate change in order to further Defendants' business interests.

126. Starting in 1998, the GCSCCT continued Defendants' efforts to deceive the public about the dangers of fossil fuel use by launching a campaign to convince the public that the scientific basis for climate change was in doubt. The multi-million-dollar, multi-year plan, among other elements, sought to: (a) "[d]evelop and implement a national media relations program to inform the media about uncertainties in climate science to generate national, regional, and local media coverage on the scientific uncertainties"; (b) "[d]evelop a global climate science information kit for media including peer-reviewed papers that undercut the 'conventional wisdom' on climate science"; (c) "[p]roduce . . . a steady stream of op-ed columns"; and (d) "[d]evelop and implement a direct outreach program to inform and educate members of Congress . . . and school

¹⁵⁶ Union of Concerned Scientists, Smoke, Mirrors & Hot Air: How ExxonMobil Uses Big Tobacco's Tactics to Manufacture Uncertainty on Climate Science (July 16, 2007), <https://www.ucsusa.org/resources/smoke-mirrors-hot-air>.

teachers/students about uncertainties in climate science” to “begin to erect a barrier against further efforts to impose Kyoto-like measures in the future”¹⁵⁷—a blatant attempt to disrupt international efforts to negotiate any treaty curbing greenhouse gas emissions and to ensure a continued and unimpeded market for their fossil fuel products.

127. Exxon, Chevron, and API directed and contributed to the development of the plan, which plainly set forth the criteria by which the contributors would know when their efforts to manufacture doubt had been successful. “Victory,” they wrote, “will be achieved when . . . average citizens ‘understand’ (recognize) uncertainties in climate science” and “recognition of uncertainties becomes part of the ‘conventional wisdom.’”¹⁵⁸ In other words, the plan was part of Defendants’ goal to use disinformation to plant doubt about the reality of climate change in an effort to maintain consumer demand for their fossil fuel products and their large profits.

128. Soon after, API distributed a memo to its members illuminating API’s and Fossil Fuel Defendants’ concern over the potential regulation of their fossil fuel products: “Climate is at the center of the industry’s business interests. Policies limiting carbon emissions reduce petroleum product use. That is why it is API’s highest priority issue and defined as ‘strategic.’”¹⁵⁹ Further, the API memo stressed many of the strategies that Defendants collectively utilized to combat the perception of their fossil fuel products as hazardous. They included:

¹⁵⁷ Email from Joe Walker to Global Climate Science Team, Draft Global Climate Science Communications Plan (Apr. 3, 1998), <https://assets.documentcloud.org/documents/784572/api-global-climate-science-communications-plan.pdf>.

¹⁵⁸ Ibid.

¹⁵⁹ Allegations of Political Interference with Government Climate Change Science, Hearing Before the Comm. on Oversight and Government Reform, 110th Cong. 324 (Mar. 19, 2007) <https://ia601904.us.archive.org/25/items/gov.gpo.fdsys.CHRG-110hhrg37415/CHRG-110hhrg37415.pdf>.

a. Influencing the tenor of the climate change “debate” as a means to establish that greenhouse gas reduction policies like the Kyoto Protocol were not necessary to responsibly address climate change;

b. Maintaining strong working relationships between government regulators and communications-oriented organizations like the Global Climate Coalition, the Heartland Institute, and other groups carrying Defendants’ message minimizing the hazards of the unabated use of their fossil fuel products and opposing regulation thereof;

c. Building the case for (and falsely dichotomizing) Defendants’ positive contributions to a “long-term approach” (ostensibly for regulation of their products) as a reason for society to reject short term fossil fuel emissions regulations, and engaging in climate change science uncertainty research; and

d. Presenting Defendants’ positions on climate change in domestic and international forums, including by preparing rebuttals to IPCC reports.

129. In furtherance of the strategies described in these memoranda, Defendants made misleading statements about climate change, the relationship between climate change and their fossil fuel products, and the urgency of the problem. Defendants made these statements in public fora and in advertisements published in newspapers and other media with substantial circulation to New Jersey, including national publications such as the New York Times, Wall Street Journal, and Washington Post.

130. Phillip Cooney, an attorney at API from 1996 to 2001, testified at a 2007 Congressional hearing that it was “typical” for API to fund think tanks and advocacy groups that minimized fossil fuels’ role in climate change. Among the groups to which API provided funding were the Heartland Institute, Competitive Enterprise Institute, and the American Council on

Capital Formation, each of which issued publications challenging the scientific consensus that fossil fuels were causing climate change and opposing restrictions on Fossil Fuel Defendants' extraction, production, and sale of fossil fuels.¹⁶⁰

131. Another key strategy in Defendants' efforts to discredit scientific consensus on climate change and the IPCC was to bankroll scientists who, although accredited, held fringe opinions that became even more questionable given the sources of their research funding. Those scientists obtained part or all of their research budget from Fossil Fuel Defendants directly or through Fossil Fuel Defendant-funded organizations like API,¹⁶¹ but they frequently failed to disclose their fossil fuel industry underwriters.¹⁶² At least one such scientist, Dr. Wei-Hock Soon, contractually agreed to allow donors to review his research before publication, and his housing institution agreed not to disclose the funding arrangement without prior permission from his fossil fuel donors.¹⁶³ Defendants intended for the research of scientists they funded to be distributed to and relied on by consumers when buying Defendants' products, including by consumers in New Jersey.

¹⁶⁰ Ibid.

¹⁶¹ E.g., Willie Soon & Sallie Baliunas, Proxy Climatic and Environmental Changes of the Past 1000 Years, 23 Climate Rsch. 88, 105 (Jan. 31, 2003), <http://www.int-res.com/articles/cr2003/23/c023p089.pdf>.

¹⁶² E.g., Smithsonian Statement: Dr. Wei-Hock (Willie) Soon, Smithsonian (Feb. 26, 2015), <https://web.archive.org/web/20181105223030/https://www.si.edu/newsdesk/releases/smithsonian-statement-dr-wei-hock-willie-soon>.

¹⁶³ Union of Concerned Scientists, Climate Deception Dossier #1: Dr. Wei-Hock Soon's Smithsonian Contracts, (July 2015), <https://www.ucsusa.org/sites/default/files/attach/2015/07/The-Climate-Deception-Dossiers.pdf> [<https://perma.cc/JL2V-XYGL>] & https://s3.amazonaws.com/ucs-documents/global-warming/Climate-Deception-Dossier-1_Willie-Soon.pdf.

132. Creating a false perception of disagreement in the scientific community (despite the consensus that its own scientists, experts, and managers had previously acknowledged) has evidently disrupted vital channels of communication between scientists and the public. A 2007 Yale University-Gallup poll found that while 71% of Americans personally believed global warming was happening, only 48% believed that there was a consensus among the scientific community, and 40% believed there was a lot of disagreement among scientists over whether global warming was occurring.¹⁶⁴ Eight years later, a 2015 Yale-George Mason University poll found that “[o]nly about one in ten Americans understands that nearly all climate scientists (over 90%) are convinced that human-caused global warming is happening, and just half . . . believe a majority do.”¹⁶⁵ Further, it found that 33% of Americans believe that climate change is mostly due to natural causes, compared to the 97% of peer-reviewed papers that acknowledge that global warming is real and at least partly human-caused.¹⁶⁶ The lack of progress, and even regress, in the public understanding of climate science over this period—during which Defendants professed to accept the conclusions of mainstream climate science—testifies to the success of Defendants’ deception campaign in thwarting dissemination of accurate scientific expertise to the public regarding the effects fossil fuel consumption.

¹⁶⁴ American Opinions on Global Warming: A Yale/Gallup/Clearvision Poll, Yale Program on Climate Change Communication (July 31, 2007), <http://climatecommunication.yale.edu/publications/american-opinions-on-global-warming>.

¹⁶⁵ Leiserowitz, et al., Climate Change in the American Mind (Yale Program on Climate Change Comm. & Geo. Mason U., Ctr. for Climate Change Comm eds., Oct. 2015), <https://climatecommunication.yale.edu/wp-content/uploads/2015/11/Climate-Change-American-Mind-October-20151.pdf>.

¹⁶⁶ Id. at 7.

133. 2007 was the same year the IPCC published its Fourth Assessment Report, in which it concluded that “there is very high confidence that the net effect of human activities since 1750 has been one of warming.”¹⁶⁷ The IPCC defined “very high confidence” as at least a 9 in 10 chance.¹⁶⁸

134. Defendants, individually and through their trade association memberships, worked directly, and often in a deliberately obscured manner, to conceal and misrepresent fossil fuel products’ known dangers from consumers, the public, and the State.

135. Defendants have funded dozens of think tanks, front groups, and dark money foundations pushing climate change denial. These include the Competitive Enterprise Institute, the Heartland Institute, Frontiers for Freedom, Committee for a Constructive Tomorrow, and Heritage Foundation. From 1998 to 2014 ExxonMobil spent almost \$31 million funding numerous organizations misrepresenting the scientific consensus that fossil fuel products were causing climate change, sea-level rise, and injuries to New Jersey, among other communities.¹⁶⁹ Several Defendants have been linked to other groups that undermine the scientific basis linking fossil fuel products to climate change and sea-level rise, including the Frontiers of Freedom Institute and the George C. Marshall Institute.

136. Exxon acknowledged its own previous success in sowing uncertainty and slowing mitigation through funding of climate denial groups. In its 2007 Corporate Citizenship Report, Exxon declared: “In 2008, we will discontinue contributions to several public policy research

¹⁶⁷ IPCC, Summary for Policymakers: A Report of Working Group I to the Fourth Assessment Report 3 (2007), <https://www.ipcc.ch/site/assets/uploads/2018/02/ar4-wg1-spm-1.pdf>.

¹⁶⁸ Ibid.

¹⁶⁹ ExxonSecrets.org, ExxonMobil Climate Denial Funding 1998–2014, <http://exxonsecrets.org/html/index.php> (last visited Oct. 14, 2022).

groups whose position on climate change could divert attention from the important discussion on how the world will secure the energy required for economic growth in an environmentally responsible manner.”¹⁷⁰ Despite this pronouncement, Exxon remained financially associated with several such groups after the report’s publication.

137. In September 2015, journalists at Inside Climate News reported that Exxon Mobil had sophisticated knowledge of the causes and consequences of climate change and the role its products played in causing climate change as far back as the 1970s.¹⁷¹ These journalists uncovered ExxonMobil’s superior knowledge through an exhaustive investigation of thousands of archived documents and through interviews with former ExxonMobil employees.

138. Between October and December 2015, several journalists at the Energy and Environment Reporting Project at Columbia University’s Graduate School of Journalism and the Los Angeles Times also exposed the fact that ExxonMobil and other members of the fossil fuel industry had superior knowledge of the causes and consequences of climate change and the role their products played in causing climate change as far back as the 1970s.¹⁷² These journalists uncovered ExxonMobil’s superior knowledge through an exhaustive investigation of archived

¹⁷⁰ ExxonMobil, 2007 Corporate Citizenship Report 41 (Dec. 31, 2007), <http://www.documentcloud.org/documents/2799777-ExxonMobil-2007-Corporate-Citizenship-Report.html>.

¹⁷¹ Neela Banerjee et al., Exxon: The Road Not Taken, InsideClimate News (Sept. 16, 2015), <https://insideclimatenews.org/content/Exxon-The-Road-Not-Taken>.

¹⁷² The Los Angeles Times published a series of three articles between October and December 2015. See Katie Jennings et al., How Exxon went from leader to skeptic on climate change research, L.A. Times (Oct. 23, 2015), <https://graphics.latimes.com/exxon-research>; Sara Jerving et al., What Exxon knew about the Earth’s melting Arctic, L.A. Times (Oct. 9, 2015), <https://www.latimes.com/nation/la-na-what-exxon-knew-20151009-story.html>; Amy Lieberman & Susanne Rust, Big Oil braced for global warming while it fought regulations, L.A. Times (Dec. 31, 2015), <https://graphics.latimes.com/oil-operations>.

documents, through interviews with former ExxonMobil employees, and through a review of scientific journals.

139. In November 2017, the Center for International Environmental Law issued a report revealing that Defendants, including API, had superior knowledge of the causes and consequences of climate change and the role fossil fuel products played in causing climate change since the 1970s.¹⁷³

140. Defendants could have contributed to the global effort to mitigate the impacts of greenhouse gas emissions by, for example, delineating practical technical strategies, policy goals, and regulatory structures that would have allowed them to continue their business ventures while reducing greenhouse gas emissions and supporting a transition to a lower carbon future. Instead, Defendants undertook a momentous effort to deceive consumers and the public about the existential hazards of burning fossil fuels—all with the purpose and effect of perpetuating and hyperinflating fossil fuel consumption and delaying the advent of alternative energy sources not based on fossil fuels.

141. As a result of Defendants' tortious, false, and misleading conduct, consumers of Defendants' fossil fuel products, the public, and policymakers, in New Jersey as elsewhere, have been deliberately and unnecessarily deceived about: the role of fossil fuel products in causing global warming, sea-level rise, disruptions to the hydrologic cycle, and increased extreme precipitation, heat waves, drought, and other consequences of the climate crisis; the acceleration of global warming since the mid-twentieth century and the continuation thereof; and the fact that the continued increase in fossil fuel consumption creates severe environmental threats and

¹⁷³ Caroll Muffett & Steven Feit, Smoke and Fumes: The Legal and Evidentiary Basis for Holding Big Oil Accountable for the Climate Crisis, Ctr. for Int'l Env'tl. Law 10 (2017), <https://www.ciel.org/reports/smoke-and-fumes>.

significant economic costs for coastal communities, including New Jersey. Consumers, the public, and policymakers in New Jersey and elsewhere have also been deceived about the depth and breadth of the state of the scientific evidence on anthropogenic climate change and, in particular, about the strength of the scientific consensus demonstrating the role of fossil fuels in causing both climate change and a wide range of potentially destructive impacts, including sea-level rise, disruptions to the hydrologic cycle, extreme precipitation, heat waves, drought, and associated consequences.

142. By sowing doubt about the future consequences of unrestricted fossil fuel consumption, Defendants' deception campaign successfully delayed the transition to alternative energy sources, which Defendants forecasted could penetrate half of a competitive energy market in 50 years if allowed to develop unimpeded. This delay caused emission of huge amounts of avoidable greenhouse gases, thereby ensuring that the damage caused by climate change will be substantially more severe than if Defendants had acted forthrightly, commensurate with their internal knowledge of climate risks.

D. In Contrast to Their Public Statements, Defendants' Internal Actions Demonstrate Their Awareness of and Intent to Profit from the Unabated Use of Fossil Fuel Products.

143. In contrast to their public-facing efforts challenging the validity of the scientific consensus about anthropogenic climate change, Fossil Fuel Defendants' acts and omissions evidence their internal acknowledgement of the reality of climate change and its likely consequences. Those actions include, but are not limited to, making multi-billion-dollar infrastructure investments for their own operations that acknowledge the reality of coming anthropogenic climate-related change. Those investments included (among others): raising offshore oil platforms to protect against sea-level rise; reinforcing offshore oil platforms to withstand increased wave strength and storm severity; developing technology and infrastructure

to extract, store, and transport fossil fuels in a warming arctic environment; and developing and patenting designs for equipment intended to extract crude oil and/or natural gas in areas previously unreachable because of the presence of polar ice sheets.¹⁷⁴

144. For example, in 1973, Exxon obtained a patent for a cargo ship capable of breaking through sea ice¹⁷⁵ and for an oil tanker¹⁷⁶ designed specifically for use in previously unreachable areas of the Arctic.

145. In 1974, Chevron obtained a patent for a mobile arctic drilling platform designed to withstand significant interference from lateral ice masses,¹⁷⁷ allowing for drilling in areas with increased ice floe movement due to elevated temperature.

146. That same year, Texaco (Chevron) worked toward obtaining a patent for a method and apparatus for reducing ice forces on a marine structure prone to being frozen in ice through natural weather conditions,¹⁷⁸ allowing for drilling in previously unreachable Arctic areas that would become seasonally accessible.

147. Shell obtained a patent similar to Texaco's (Chevron) in 1984.¹⁷⁹

148. In 1989, Norske Shell, Royal Dutch Shell's Norwegian subsidiary, altered designs for a natural gas platform planned for construction in the North Sea to account for anticipated sea-

¹⁷⁴ Lieberman & Rust.

¹⁷⁵ ExxonMobil Research Engineering Co., Patent US3727571A: Icebreaking cargo vessel (granted Apr. 17, 1973), <https://www.google.com/patents/US3727571>.

¹⁷⁶ ExxonMobil Research Engineering Co., Patent US3745960A: Tanker vessel (granted July 17, 1973), <https://www.google.com/patents/US3745960>.

¹⁷⁷ Chevron Research & Technology Co., Patent US3831385A: Arctic offshore platform (granted Aug. 27, 1974), <https://www.google.com/patents/US3831385>.

¹⁷⁸ Texaco Inc., Patent US3793840A: Mobile, arctic drilling and production platform (granted Feb. 26, 1974), <https://www.google.com/patents/US3793840>.

¹⁷⁹ Shell Oil Co., Patent US4427320A: Arctic offshore platform (granted Jan. 24, 1984), <https://www.google.com/patents/US4427320>.

level rise. Those design changes were ultimately carried out by Shell's contractors, adding substantial costs to the project.¹⁸⁰

a. The Troll field, off the Norwegian coast in the North Sea, was proven to contain large natural oil and gas deposits in 1979, shortly after Norske Shell was approved by Norwegian oil and gas regulators to operate a portion of the field.

b. In 1986, the Norwegian parliament granted Norske Shell authority to complete the first development phase of the Troll field gas deposits, and Norske Shell began designing the "Troll A" gas platform, with the intent to begin operation of the platform in approximately 1995. Based on the very large size of the gas deposits in the Troll field, the Troll A platform was projected to operate for approximately 70 years.

c. The platform was originally designed to stand approximately 100 feet above sea level—the amount necessary to stay above waves in a once-in-a-century strength storm.

d. In 1989, Shell engineers revised their plans to increase the above-water height of the platform by 3 to 6 feet, specifically to account for higher anticipated average sea levels and increased storm intensity due to global warming over the platform's 70-year operational life.¹⁸¹

e. Shell projected that the additional 3 to 6 feet of above-water construction would increase the cost of the Troll A platform by as much as \$40 million.

¹⁸⁰ Greenhouse Effect: Shell Anticipates a Sea Change, N.Y. Times (Dec. 20, 1989), <http://www.nytimes.com/1989/12/20/business/greenhouse-effect-shell-anticipates-a-sea-change.html>.

¹⁸¹ Id.; Lieberman & Rust.

E. Defendants' Actions Have Exacerbated the Costs of Adapting to and Mitigating the Adverse Impacts of the Climate Crisis.

149. As greenhouse gas pollution accumulates in the atmosphere, some of which does not dissipate for potentially thousands of years (namely CO₂), climate changes and consequent adverse environmental changes compound, and their frequencies and magnitudes increase. As those adverse environmental changes compound and their frequencies and magnitudes increase, so too do the physical, environmental, economic, and social injuries resulting therefrom.

150. Delayed introduction of alternative energy sources and related efforts to curb anthropogenic greenhouse gas emissions have therefore increased environmental harms and increased the magnitude and cost to address harms, including to New Jersey, that have already occurred or are locked in by previous emissions.

151. Therefore, Defendants' campaign to obscure the science of climate change to protect and expand the use of fossil fuels greatly increased and continues to increase the injuries suffered by New Jersey and its residents.

152. The costs of inaction on anthropogenic climate change and its adverse environmental effects were not lost on Defendants. In a 1997 speech by John Browne, Group Executive for BP America, at Stanford University, Browne described Defendants' and the entire fossil fuel industry's responsibility and opportunities to reduce use of fossil fuel products, reduce global CO₂ emissions, and mitigate the harms associated with the use and consumption of such products:

A new age demands a fresh perspective of the nature of society and responsibility.

We need to go beyond analysis and to take action. It is a moment for change and for a rethinking of corporate responsibility. . . .

[T]here is now an effective consensus among the world's leading scientists and serious and well informed people outside the scientific community that there is a discernible human influence on the climate, and a link between the concentration

of carbon dioxide and the increase in temperature.

The prediction of the IPCC is that over the next century temperatures might rise by a further 1 to 3.5 degrees centigrade [1.8°—6.3° F], and that sea levels might rise by between 15 and 95 centimetres [5.9 and 37.4 inches]. Some of that impact is probably unavoidable, because it results from current emissions. . . .

[I]t would be unwise and potentially dangerous to ignore the mounting concern.

The time to consider the policy dimensions of climate change is not when the link between greenhouse gases and climate change is conclusively proven . . . but when the possibility cannot be discounted and is taken seriously by the society of which we are part. . . .

We [the fossil fuel industry] have a responsibility to act, and I hope that through our actions we can contribute to the much wider process which is desirable and necessary.

BP accepts that responsibility and we're therefore taking some specific steps.

To control our own emissions.

To fund continuing scientific research.

To take initiatives for joint implementation.

To develop alternative fuels for the long term.

And to contribute to the public policy debate in search of the wider global answers to the problem.¹⁸²

153. Despite Defendants' knowledge of the foreseeable, measurable, and significant harms associated with the unrestrained consumption and use of their fossil fuel products, in New Jersey as elsewhere, and despite Defendants' knowledge of technologies and practices that could have helped to reduce the foreseeable dangers associated with their fossil fuel products, Defendants continued to misleadingly and wrongfully market and promote heavy fossil fuel use and mounted a campaign to obscure the connection between their fossil fuel products and the

¹⁸² John Browne, BP Climate Change Speech to Stanford, ClimateFiles (May 19, 1997), <http://www.climatefiles.com/bp/bp-climate-change-speech-to-stanford>.

climate crisis, dramatically increasing the cost of abatement. This campaign was intended to and did reach and influence New Jersey consumers, along with consumers elsewhere. At all relevant times, Defendants were deeply familiar with opportunities to reduce the use of their fossil fuel products and associated global greenhouse emissions, mitigate the harms associated with the use and consumption of their products, and promote development of alternative, clean energy sources. Examples of that recognition include, but are not limited to, the following:

a. In 1961, Phillips Petroleum Company filed a patent application for a method to purify gas, among other things, as “natural gas containing gasoline hydrocarbons can contain undesirable amounts of sulfur and other compounds such as carbon dioxide which are undesirable in the finished gasoline product.”¹⁸³

b. In 1963, Esso (Exxon Mobil) obtained multiple patents on technologies for fuel cells,¹⁸⁴ including on the design of a fuel cell and necessary electrodes,¹⁸⁵ and on a process for increasing the oxidation of a fuel, specifically methanol, to produce electricity in a fuel cell.¹⁸⁶

c. In 1970, Esso (Exxon Mobil) obtained a patent for a “low-polluting engine and drive system” that used an interburner and air compressor to reduce pollutant emissions, including CO₂ emissions, from gasoline combustion engines (the system also increased the

¹⁸³ Phillips Petroleum Co., Patent US3228874A: Method for recovering a purified component from a gas (filed Aug. 22, 1961), <https://patents.google.com/patent/US3228874>.

¹⁸⁴ Fuel cells use the chemical energy of hydrogen or other fuels to produce electricity. See U.S. Dep’t of Energy, Fuel Cells, <https://www.energy.gov/eere/fuelcells/fuel-cells> (last visited Oct. 16, 2022).

¹⁸⁵ ExxonMobil Research Engineering Co., Patent US3116169A: Fuel cell and fuel cell electrodes (granted Dec. 31, 1963), <https://www.google.com/patents/US3116169>.

¹⁸⁶ ExxonMobil Research Engineering Co., Patent US3113049A: Direct production of electrical energy from liquid fuels (granted Dec. 3, 1963), <https://www.google.com/patents/US3113049>.

efficiency of the fossil fuel products used in such engines, thereby lowering the amount of fossil fuel product necessary to operate engines equipped with this technology).¹⁸⁷

d. In 1980, Imperial Oil wrote in its “Review of Environmental Protection Activities for 1978–79”: “There is no doubt that increases in fossil fuel usage and decreases in forest cover are aggravating the potential problem of increased CO₂ in the atmosphere. Technology exists to remove CO₂ from stack gases but removal of only 50% of the CO₂ would double the cost of power generation.”¹⁸⁸

e. A 1987 company briefing produced by Shell on “Synthetic Fuels and Renewable Energy” noted that while “immediate prospects” were “limited,” “nevertheless it is by pursuing commercial opportunities now and in the near future that the valuable experience needed for further development will be gained.” The brief also noted that “the task of replacing oil resources is likely to become increasingly difficult and expensive and there will be a growing need to develop lean, convenient alternatives. Initially these will supplement and eventually replace valuable oil products. Many potential energy options are as yet unknown or at very early stages of research and development. New energy sources take decades to make a major global contribution. Sustained commitment is therefore needed during the remainder of this century to ensure that new technologies and those currently at a relatively early stage of development are available to meet energy needs in the next century.”¹⁸⁹

¹⁸⁷ ExxonMobil Research Engineering Co., Patent US3513929A: Low-polluting engine and drive system (granted May 26, 1970), <https://www.google.com/patents/US3513929>.

¹⁸⁸ Imperial Oil Ltd., Review of Environmental Protection Activities for 1978–1979 2 (Aug. 6, 1980), <http://www.documentcloud.org/documents/2827784-1980-Imperial-Oil-Review-of-Environmental.html#document/p2>.

¹⁸⁹ Synthetic Fuels and Renewable Energy, Shell Service Briefing, no. 2, 1987, <https://assets.documentcloud.org/documents/4411089/Document2.pdf>.

f. A 1989 article in a publication from Exxon Corporate Research for company use only stated: “CO2 emissions contribute about half the forcing leading to a potential enhancement of the Greenhouse Effect. Since energy generation from fossil fuels dominates modern CO2 emissions, strategies to limit CO2 growth focus near term on energy efficiency and long term on developing alternative energy sources. Practiced at a level to significantly reduce the growth of greenhouse gases, these actions would have substantial impact on society and our industry—near-term from reduced demand for current products, long term from transition to entirely new energy systems.”¹⁹⁰

154. Despite these repeated recognitions of opportunities to reduce emissions and mitigate corresponding harms from climate change, Defendants continued to sow doubt and disinformation to the public and consumers regarding the causes and effects of climate change and ways to reduce emissions. Examples of those efforts include, but are not limited to, the following:

a. In 1996, more than 30 years after API’s president warned that “time is running out” for the world to address the “catastrophic consequences of pollution,” API published the book Reinventing Energy: Making the Right Choices to refute this very conclusion. Contradicting the scientific consensus known by its members for decades, the book claims: “Currently, no conclusive—or even strongly suggestive—scientific evidence exists that human activities are significantly affecting sea levels, rainfall, surface temperatures, or the intensity and frequency of storms.”¹⁹¹

¹⁹⁰ Brian Flannery, Greenhouse Science, Connections: Corporate Research, Exxon Research and Engineering Company (Fall 1989), <http://www.climatefiles.com/exxonmobil/1989-exxon-mobil-article-technologys-place-marketing-mix>.

¹⁹¹ American Petroleum Institute, Reinventing Energy: Making the Right Choices 79 (1996), <http://www.climatefiles.com/trade-group/american-petroleum-institute/1996-reinventing-energy>.

b. The book downplayed nearly every aspect of established climate science. API baldly claimed that scientists do not understand how carbon flows in and out of the atmosphere and whether fossil fuels are even responsible for increasing concentrations of atmospheric CO₂. It then explained that even if some warming does occur, such warming “would present few if any problems” because, for example, farmers could be “smart enough to change their crop plans” and low-lying areas would “likely adapt” to sea-level rise.¹⁹²

c. In the publication, API also contended that “the state of the environment does not justify the call for the radical lifestyle changes Americans would have to make to substantially reduce the use of oil and other fossil fuels” and that the “benefits of alternatives aren’t worth the cost of forcing their use.” “Some jobs definitely will be created in making, distributing and selling alternatives. But they will come at the expense of lost jobs in the traditional automobile and petroleum industries,” the authors continued. “Alternatives will likely be more expensive than conventional fuel/vehicle technology. Consumers, obviously, will bear these increased expenses, which means they will have less to spend on other products and cost jobs [sic].”¹⁹³

d. API published this book in service of one goal—ensuring its members could continue to produce and sell fossil fuels in massive quantities that it knew would devastate the planet. The book’s final section reveals this purpose. API concluded: “[S]evere reduction in greenhouse gas emissions by the United States or even all developed countries would impose large costs on countries but yield little in the way of benefits—even under drastic climate change scenarios.”¹⁹⁴

¹⁹² Id. at 86–87.

¹⁹³ Id. at 59, 68, 69.

¹⁹⁴ Id. at 89.

155. Fossil Fuel Defendants could have made major inroads to mitigate the State's injuries by developing and employing technologies to capture and sequester greenhouse gas emissions associated with conventional use of their fossil fuel products. Fossil Fuel Defendants had knowledge dating at least back to the 1960s and, indeed, internally researched and perfected many such technologies. For instance:

a. Phillips Petroleum Company (ConocoPhillips) obtained a patent in 1966 for a "Method for recovering a purified component from a gas" outlining a process to remove carbon from natural gas and gasoline streams;¹⁹⁵ and

b. In 1973, Shell was granted a patent for a process to remove acidic gases, including CO₂, from gaseous mixtures.¹⁹⁶

156. Even if Fossil Fuel Defendants did not adopt technological or energy source alternatives that would have reduced use of fossil fuel products, reduced global greenhouse gas pollution, and/or mitigated the harms associated with the use and consumption of such products, Fossil Fuel Defendants could have taken other practical, cost-effective steps to mitigate the risks posed by fossil fuel products. Those alternatives could have included, among other measures:

a. Acknowledging and sharing the validity of scientific evidence on anthropogenic climate change and the damages it will cause people, communities (including the State), and the environment. Acceptance of that evidence along with associated warnings and actions would have progressed the agenda from determining whether to combat climate change and sea-level rise to deciding how to combat it; avoided much of the public confusion that has

¹⁹⁵ Phillips Petroleum Co., Patent US3228874A: Method for recovering a purified component from a gas (granted Jan. 11, 1966), <https://patents.google.com/patent/US3228874>.

¹⁹⁶ Shell Oil Co., Patent US3760564A: Process for the removal of acidic gases from a gas mixture, (granted Sept. 25, 1973), <https://www.google.com/patents/US3760564A>.

ensued over more than 30 years, since at least 1988; and contributed to an earlier and quicker transition to energy sources compatible with minimizing catastrophic climatic consequences.

b. Forthrightly communicating with consumers, the public, regulators, stockholders, banks, insurers, and the State and warning them about the global warming hazards of Defendants' fossil fuel products that were known to Defendants, which would have enabled those groups to make material, informed decisions about whether and how to address climate change and sea-level rise vis-à-vis Defendants' products—including whether and how much to invest in alternative clean energy sources compared to fossil fuels;

c. Refraining from affirmative efforts, whether directly, through coalitions, or through front groups, to distort public debate, and to cause many consumers and business and political leaders to think the relevant science was far less certain than it actually was;

d. Sharing their internal scientific research with consumers and the public, and with other scientists and business leaders, to increase public understanding of the scientific underpinnings of climate change and its relation to Defendants' fossil fuel products;

e. Supporting and encouraging policies to avoid dangerous climate change, and demonstrating corporate leadership in addressing the challenges of transitioning to a low-carbon economy;

f. Prioritizing development of alternative sources of energy through sustained investment and research on renewable energy sources to replace dependence on Defendants' hazardous fossil fuel products; and

g. Adopting their shareholders' concerns about Fossil Fuel Defendants' need to protect their businesses from the inevitable consequences of profiting from their fossil fuel products. Over the period of 1990–2015, Fossil Fuel Defendants' shareholders proposed hundreds

of resolutions to change Fossil Fuel Defendants' policies and business practices regarding climate change. Those included increasing renewable energy investment, cutting emissions, and performing carbon risk assessments, among others.

157. Despite their knowledge of the foreseeable harms associated with the consumption of Defendants' fossil fuel products, and despite the existence and fossil fuel industry knowledge of opportunities that would have reduced the foreseeable dangers associated with those products, Defendants wrongfully and falsely promoted and concealed the hazards of using their fossil fuel products.

F. Defendants Continue to Mislead About the Impact of Their Fossil Fuel Products on Climate Change Through Greenwashing Campaigns and Other Misleading Advertisements in New Jersey and Elsewhere.

158. Defendants' coordinated campaign of disinformation and deception continues today, even as the scientific consensus about the causes and consequences of climate change has strengthened. Fossil Fuel Defendants have falsely claimed through advertising campaigns in New Jersey and/or campaigns intended to reach New Jersey that their businesses are substantially invested in lower-carbon technologies and renewable energy sources. In truth, each Fossil Fuel Defendant has invested minimally in renewable energy while continuing to expand its fossil fuel production. Reasonable consumers exposed to Fossil Fuel Defendants' advertisements would understand Fossil Fuel Defendants to be far more substantially invested in alternative energy sources than in fact is the case. Each has also claimed that certain of their fossil fuel products are "green" or "clean," and that using these products will sufficiently reduce or mitigate the dangers of climate change. None of Fossil Fuel Defendants' fossil fuel products are "green" or "clean" because they all ultimately continue to warm the planet.

159. After having engaged in a long campaign to deceive consumers and the public about the weight of climate science, Defendants are now engaging in "greenwashing" by employing false

and misleading advertising campaigns promoting themselves as sustainable energy companies committed to finding solutions to climate change, including by investing in alternative energy. These campaigns were intended to and did reach and influence the public and consumers, including in New Jersey.

160. These misleading “greenwashing” campaigns are intended to capitalize on consumers’ concerns about climate change and lead New Jersey consumers to believe that Fossil Fuel Defendants are substantially diversified energy companies making meaningful investments in low-carbon energy compatible with minimizing catastrophic climate change.

161. Contrary to this messaging, however, Fossil Fuel Defendants’ spending on low-carbon energy is substantially and materially less than Fossil Fuel Defendants indicate to consumers. According to a recent analysis, between 2010 and 2018, BP spent 2.3% of total capital spending on low-carbon energy sources, Shell spent 1.2%, and Chevron and Exxon just 0.2% each.¹⁹⁷ Meanwhile, Fossil Fuel Defendants continue to expand fossil fuel production and typically do not even include non-fossil energy systems in their key performance indicators or reported annual production statistics.¹⁹⁸

162. Ultimately, although Defendants currently claim to support reducing greenhouse gas emissions, their conduct belies these statements. Fossil Fuel Defendants have continued to ramp up fossil fuel production globally; to invest in new fossil fuel development, including in tar

¹⁹⁷ Anjali Raval & Leslie Hook, Oil and Gas Advertising Spree Signals Industry’s Dilemma, Financial Times (Mar. 6, 2019), <https://www.ft.com/content/5ab7edb2-3366-11e9-bd3a-8b2a211d90d5>.

¹⁹⁸ See, e.g., BP Annual Report and Form 20-F 24 (2017), <https://www.bp.com/content/dam/bp/business-sites/en/global/corporate/pdfs/investors/bp-annual-report-and-form-20f-2017.pdf>.

sands crude and shale gas fracking, some of the most carbon-intensive extraction projects; and to plan for unabated oil and gas exploitation indefinitely into the future.

163. For example, Exxon is projected to increase oil production by more than 35% between 2018 and 2030—a sharper rise than over the previous 12 years.¹⁹⁹ Shell is forecast to increase output by 38% by 2030, by increasing its crude oil production by more than half and its gas production by over a quarter.²⁰⁰ BP is projected to increase production of oil and gas by 20% by 2030.²⁰¹ Chevron set an oil production record in 2018 of 2.93 million barrels per day.²⁰² Like the other Fossil Fuel Defendants, it sees the next 20 years—the crucial window in which the world must reduce greenhouse gas emissions to avert the most catastrophic effects of the climate crisis—as a time of increased investment and production in its fossil fuel operations. For example, a 2019 investor report touted Chevron’s “significant reserve additions in 2018” in the multiple regions in North America and around the world, as well as significant capital projects involving construction of refineries worldwide.²⁰³

164. Defendants’ greenwashing campaigns deceptively minimize their own role in causing climate change, including by suggesting that small changes in consumer choice and behavior can adequately address climate change. These campaigns misleadingly portray Fossil

¹⁹⁹ Jonathan Watts et al., Oil Firms to Pour Extra 7m Barrels Per Day Into Markets, Data Shows, The Guardian (Oct. 10, 2019), <https://www.theguardian.com/environment/2019/oct/10/oil-firms-barrels-markets>.

²⁰⁰ Id.

²⁰¹ Id.

²⁰² Kevin Crowley & Eric Roston, Chevron Aligns Strategy with Paris Deal But Won’t Cap Output, Bloomberg (Feb. 7, 2019), <https://www.bloomberg.com/news/articles/2019-02-07/chevron-pledges-alignment-with-paris-accord-but-won-t-cap-output>.

²⁰³ Chevron, Chevron 2019 Investor Presentation (Feb. 2019), <https://chevroncorp.gcs-web.com/static-files/c3815b42-4deb-4604-8c51-bde9026f6e45>.

Fossil Fuel Defendants as part of the solution to climate change and distract from the fact that their fossil fuel products are the primary driver of global warming.

165. Below are representative excerpts from Defendants' greenwashing campaigns, which present a false image of Fossil Fuel Defendants as clean energy innovators taking meaningful action to address climate change. Defendants' actions to further entrench fossil fuel production and consumption squarely contradict their public affirmations of corporate responsibility and support for reducing global greenhouse gas emissions. Functionally, Defendants have cut fossil fuels from their brand but not their business operations. Their greenwashing advertisements to the contrary are deceptive to New Jersey consumers.

i. Exxon's Misleading and Deceptive Greenwashing Campaigns

166. Exxon is currently running a series of full-page advertisements in print editions and posts in the electronic edition of The New York Times, as well as on Exxon's YouTube channel, in which Exxon misleadingly promotes its efforts to develop energy from alternative sources such as algae and plant waste—efforts that are vanishingly small in relation to the investments Exxon continues to make in fossil fuel production.

167. For example, an online advertisement in The New York Times, accessible to and marketed toward New Jersey consumers, promotes the company's development of algae biofuels. The advertisement misleadingly tells consumers that Exxon is "working to decrease [its] overall carbon footprint," and that the company's "sustainable and environmentally friendly" biodiesel fuel could reduce "carbon emissions from transportation" by greater than 50%.²⁰⁴ Exxon is not

²⁰⁴ The Future of Energy? It May Come From Where You Least Expect (ExxonMobil Paid Post), N.Y. Times, <https://www.nytimes.com/paidpost/exxonmobil/the-future-of-energy-it-may-come-from-where-you-least-expect.html>.

investing anywhere near sufficient resources in algae biofuels to achieve the emissions reductions touted in its advertisements.

168. Exxon's advertisements promoting its investments in "sustainable and environmentally friendly" energy sources also fail to mention that the company's investment in alternative energy is miniscule compared to its ongoing "business as usual" ramp-up in global fossil fuel exploration, development, and production activities. From 2010 to 2018, Exxon spent only 0.2% of its capital expenditures on low-carbon energy systems, with nearly the totality of its spending (99.8%) focused on maintaining and expanding fossil fuel production. The company has simultaneously invested billions of dollars into development of Canadian tar sands projects, some of the most carbon-intensive oil extraction projects in the world.²⁰⁵

169. In 2016, for example, Exxon earned \$198 billion in revenue but invested less than 1% of that amount in alternative energy research, including algae.

170. Exxon's investment is not nearly enough to produce alternative energy on the scale falsely implied and touted by Exxon in its advertisements. A 2019 report by InfluenceMap documents that Exxon's advertised goal of producing 10,000 barrels of biofuel per day by 2025 would equate to only 0.2% of its current refinery capacity—an amount the report referred to as "a rounding error."²⁰⁶ This is in sharp contrast to Exxon's projected increases in oil production by more than 35%, meaning any alternative fuel efforts are offset by massive oil emissions.²⁰⁷

²⁰⁵ Raval & Hook. Exxon has invested more than 20 billion dollars in capital expenditures at its open-pit tar sands mining operation at Kearl Lake in Alberta, Canada.

²⁰⁶ InfluenceMap, Big Oil's Real Agenda on Climate Change (Mar. 2019), <https://influencemap.org/report/How-Big-Oil-Continues-to-Oppose-the-Paris-Agreement-38212275958aa21196dae3b76220bddd>.

²⁰⁷ Watts et al., supra note 200.

171. Supplementing this misleading campaign, Exxon has promoted dozens of multimedia advertisements on platforms such as Instagram, Twitter, Facebook, and LinkedIn, where Exxon has millions of social media followers and its content has received hundreds of thousands of “likes” and “views.” These advertisements overwhelmingly emphasize its claimed leadership in research on lowering emissions, algae biofuel, climate change solutions, and clean energy research. These advertisements were intended to and did reach the public and consumers in New Jersey. An ordinary consumer witnessing these advertisements would come away believing that Exxon is meaningfully invested in developing and deploying alternative energy technologies, whereas in truth nearly all the company’s expenditures are directed toward present and future oil and gas development that hurtles the world toward climate catastrophe. Exxon’s failure to inform ordinary consumers that its touted clean energy investments comprise only a miniscule percentage of its expenditures—and that it intends to ramp up fossil fuel production and sales in the future—renders these advertisements materially misleading.

ii. Shell’s Misleading and Deceptive Greenwashing Campaigns

172. Like Exxon, Shell has misleadingly promoted itself to New Jersey consumers as environmentally conscientious through advertisements in publications such as The New York Times. The advertisements are targeted to and read by New Jersey consumers and intended to influence consumer demand for Shell’s products.

173. As part of Shell’s “Make the Future” campaign, the company has published numerous advertisements currently viewable on The New York Times website,²⁰⁸ in which the

²⁰⁸ See, e.g., Moving Forward: A Path To Net-Zero Emissions By 2070 (Shell Paid Post), N.Y. Times, <https://www.nytimes.com/paidpost/shell/ul/moving-forward-a-path-to-net-zero-emissions-by-2070.html>.

company touts its investment in new energy sources, including liquified natural gas (“LNG”) and biofuel, which Shell refers to as “cleaner sources.”

174. One Shell advertisement in the Washington Post, “The Making of Sustainable Mobility,” refers to LNG as “a critical component of a sustainable energy mix” and a “lower-carbon fuel” that could “help decrease” CO₂ emissions.²⁰⁹ The ad emphasizes Shell’s leadership in “setting the course” for a “lower-carbon mobility future.” Similarly, another Shell advertisement in The Washington Post, “The Mobility Quandary,” emphasizes Shell’s role in working to counteract climate change through investments in alternative energy: “Shell is a bigger player than you might expect in this budding movement to realize a cleaner and more efficient transportation future.”²¹⁰

175. Shell’s statements emphasizing its involvement in these many areas of energy-related research, development, and deployment are misleading; the company’s investments and activities are substantially smaller than its advertisements lead consumers to believe. In reality, only 1.2% of Shell’s capital spending from 2010 to 2018 was in low-carbon energy sources, and that number continues to be heavily outweighed by Shell’s continued expansion of its fossil fuel business.²¹¹

176. Shell’s “Make the Future” advertisements also misled consumers about the extent to which Shell has invested in clean energy technology. For example, “The Mobility Quandary”

²⁰⁹ See, e.g., The Making of Sustainable Mobility (Content from Shell), Wash. Post, <https://www.washingtonpost.com/brand-studio/shell/the-making-of-sustainable-mobility>.

²¹⁰ The Mobility Quandary (Content from Shell), Wash. Post, <https://www.washingtonpost.com/brand-studio/shell/the-mobility-quandary> (“Another critical component of a sustainable energy mix in transportation is further investment in natural gas, a cleaner-burning fossil fuel . . .”).

²¹¹ Raval & Hook, supra note 198.

touts Shell's investments in hydrogen fuel cell technology, promoting hydrogen as "sustainable in the long-term" and "[o]ne of the cleaner sources" that power electric vehicles, stating that "[h]ydrogen fuel cell vehicles . . . emit nothing from their tailpipes but water vapor."²¹² Shell's "In for the Long Haul" advertisement in The New York Times similarly promotes its investment in hydrogen fuel cells, as well as biofuels, as meaningful attempts to mitigate climate change.²¹³ But in reality, Shell's spending plans show that it will spend four times more money on oil and gas development than on renewable technology in 2022.²¹⁴ Independent analysis of Shell's spending plans shows that the company will be emitting more greenhouse gas by 2030 than it currently emits.²¹⁵ On its current trajectory, Shell is projected to miss its emissions reduction targets for both 2030 and 2050.²¹⁶ Shell's failure to inform ordinary consumers that its touted clean energy investments comprise only a miniscule percentage of its expenditures—and that it intends to ramp up fossil fuel production and sales in the future—renders these advertisements materially misleading.

iii. BP's Misleading and Deceptive Greenwashing Campaigns

177. BP also has misleadingly portrayed itself as diversifying its energy portfolio and reducing its reliance on fossil fuel sales, when its alternative energy portfolio is negligible compared to the company's ever-expanding fossil fuel portfolio. To this end, BP has employed a

²¹² Shell, The Mobility Quandary, *supra* note 211.

²¹³ Moving Forward: A Path to Net-Zero Emissions by 2070 (Content from Shell), N.Y. Times, <https://www.nytimes.com/paidpost/shell/ul/moving-forward-a-path-to-net-zero-emissions-by-2070.html>.

²¹⁴ Simon Jack, Oil Giant Shell Says It Needs Oil to Pay for Green Shift, BBC News (Nov. 3, 2021), <https://www.bbc.com/news/business-59154930>.

²¹⁵ Id.

²¹⁶ Id.

series of misleading greenwashing advertisements, which are intended to influence consumer demand for its products, including consumers in New Jersey.

178. BP ran its extensive “Beyond Petroleum” advertising and rebranding campaign from 2000 to 2008 and even changed its logo to a sunburst, evoking the renewable resource of the sun. BP uses the sunburst logo to advertise at its New Jersey gas stations, where consumers purchase BP’s gas. The “Beyond Petroleum” advertising campaign falsely portrayed the company as heavily engaged in low-carbon energy sources and no longer investing in but rather moving “beyond” petroleum and other fossil fuels. In truth, BP invested a small percentage of its total capital expenditure during this period on alternative energy research. The vast majority of its capital expenditure was focused on fossil fuel exploration, production, refining, and marketing.²¹⁷ The company ultimately abandoned its solar and wind assets in 2011 and 2013, respectively, and even the “Beyond Petroleum” moniker in 2013.²¹⁸

179. In 2019, BP launched an advertising campaign called “Possibilities Everywhere.” These advertisements were misleading both in their portrayal of BP as heavily involved in non-fossil energy systems, including wind, solar, and electric vehicles, as well as in their portrayal of natural gas as environmentally friendly.

180. One Possibilities Everywhere advertisement, called “Better fuels to power your busy life,” stated:

We [] want—and need—[] energy to be kinder to the planet. At BP, we’re working to make our energy cleaner and better. . . . At BP, we’re leaving no stone unturned to provide [the] extra energy

²¹⁷ See BP, Annual Reports and Accounts 2008, <https://www.bp.com/content/dam/bp/business-sites/en/global/corporate/pdfs/investors/bp-annual-report-accounts-2008.pdf>.

²¹⁸ Javier E. David, ‘Beyond Petroleum’ No More? BP Goes Back to Basics, CNBC (Apr. 20, 2013), <http://www.cnbc.com/id/100647034>.

the world needs while finding new ways to produce and deliver it with 53 fewer emissions. . . . We're bringing solar and wind energy to homes from the US to India. We're boosting supplies of cleaner burning natural gas. . . . More energy with fewer emissions? We see possibilities everywhere to help the world keep advancing.²¹⁹

The accompanying video showed a busy household while a voiceover said, "We all want more energy, but with less carbon footprint. That's why at BP we're working to make energy that's cleaner and better."²²⁰

181. But BP's claim that non-fossil energy systems constitute a substantial portion of BP's business was materially false and misleading. For example, BP owns only approximately 1.7 gigawatts ("GW") of wind capacity, which is dwarfed by other companies including GE, Siemens, and Vestas (with about 39 GW, 26 GW, and 23 GW capacities, respectively).²²¹ Overall, installed wind capacity in the United States is approximately 100 GW, meaning BP's installed capacity is a mere 1% of the market.²²² Yet, "Blade runners," another advertisement in BP's "Possibilities Everywhere" campaign, described the company as "one of the major wind energy businesses in

²¹⁹ See BP, Better fuels to Power Your Busy Life, <https://web.archive.org/web/20191130155554/https://www.bp.com/en/global/corporate/who-we-are/possibilities-everywhere/energy-for-busy-lives.html>.

²²⁰ Id.

²²¹ For BP's wind capacity, see Press Release, BP Advances Offshore Wind Growth Strategy (Feb. 8, 2021), <https://www.bp.com/en/global/corporate/news-and-insights/press-releases/bp-advances-offshore-wind-growth-strategy.html>. For wind capacity of GE, Siemens, and Vestas, see Abby McClain, The 15 Largest Wind Power Companies in the World (July 12, 2022), <https://www.zippia.com/advice/largest-wind-power-companies/>.

²²² See Elizabeth Ingram, U.S. Wind Capacity Grew 8% in 2019, AWEA says, Renewable Energy World (Apr. 10, 2019), <https://www.renewableenergyworld.com/wind-power/u-s-wind-capacity-grew-8-in-2018-awea-says/>.

the US.”²²³ In short, BP’s relatively small wind power portfolio is materially smaller than that conveyed in the company’s advertisements.

182. The same is true for BP’s activities in solar energy, which consist predominantly of its purchase of a minority interest in the solar company Lightsource (rebranded Lightsource BP).²²⁴ The purchase price for this interest represents only 0.4% of BP’s annual capital expenditure of approximately \$16 billion, nearly all of which focuses on fossil fuels.²²⁵ This is a far cry from BP’s claim that it was “leaving no stone unturned” to find “new” ways to produce lower-emissions energy and playing a “leading role” in “advancing a low carbon future.” These claims convey the misleading impression to ordinary consumers that BP is substantially invested in developing and deploying clean energy technology, whereas in truth nearly all the company’s present and future expenditures are directed toward oil and gas development that hurtles the world toward climate catastrophe. BP’s failure to inform ordinary consumers that its touted clean energy investments comprise only a miniscule percentage of its expenditures—and that it intends to ramp up fossil fuel production and sales in the future—renders these advertisements materially misleading.

183. In BP’s web advertisement “Rise and shine,” the company nevertheless specifically touted its Lightsource partnership. “Our economics gurus believe [solar power] could account for

²²³ See BP, Blade Runners, <https://web.archive.org/web/20191130192545/https://www.bp.com/en/global/corporate/who-we-are/possibilities-everywhere/wind-and-natural-gas.html>.

²²⁴ BP Annual Report and Form 20-F 42 (2017), <https://www.bp.com/content/dam/bp/business-sites/en/global/corporate/pdfs/investors/bp-annual-report-and-form-20f-2017.pdf>.

²²⁵ See BP to Maintain Reduced Capital Spending Through 2021, Oil & Gas Journal (Feb. 28, 2017), <https://www.ogj.com/general-interest/article/17290398/bp-to-maintain-reduced-capital-spending-through-2021>.

10% of the world's power by 2040," the ad stated, and "to help make that a reality, we've teamed up with Europe's largest solar company, [Lightsource BP]."²²⁶ The ad highlighted Lightsource BP's 6.3 MW floating solar power station near London and Lightsource BP's deal with Budweiser to supply renewable energy to its U.K. breweries. "Projects like these are advancing the possibilities of solar," BP claimed, "and even rainy days can't dampen the excitement for this fast-growing energy source. That's because, whatever the weather, our cleaner-burning natural gas can play a supporting role to still keep your kettle ready for action."²²⁷

184. This portrayal of solar power as BP's strong interest, with natural gas used only as a backup, is also false. BP's investments in natural gas outstrip its solar investments by a factor of approximately 100 or more, and only a small fraction of its natural gas products, an estimated 5% or less, are used to backup renewables. Thus, the overall impression given by the advertisements—that BP is substantially invested in solar energy, with its natural gas used only for backup—is materially misleading to consumers.

iv. Chevron's Misleading and Deceptive Greenwashing Campaigns

185. Chevron also engaged in greenwashing campaigns designed to deceive consumers about Chevron's products and its commitment to address climate change, including consumers in New Jersey.

186. In 2001, Chevron developed and shared a sophisticated information management system to gather greenhouse gas emissions data from its explorations and production to help regulate and set reduction goals.²²⁸ Beyond this technological breakthrough, Chevron touted

²²⁶ BP, Rise and Shine.

²²⁷ Id.

²²⁸ Press Release, Chevron, Chevron Introduces New System to Manage Energy Use (Sept. 25, 2001), <https://web.archive.org/web/20170207205638/https://www.chevron.com/stories/chevron-introduces-new-system-to-manage-energy-use>.

“profitable renewable energy” as part of its business plan for several years and launched a 2010 advertising campaign promoting the company’s move towards renewable energy. Despite this rhetoric—and Chevron renewable power group’s \$27 million profit in 2013—Chevron sold its renewable energy unit in 2014.²²⁹

187. Chevron’s 2007 “Will You Join Us?” campaign and its 2008 “I Will” campaign both misleadingly portrayed the company as a leader in renewable energy. The campaigns’ advertisements portrayed minor changes in consumer choices (e.g., changing light bulbs) as sufficient to address environmental problems such as climate change.²³⁰

188. The overall thrust of the campaigns was to shift the perception of fault and responsibility for global warming to consumers and make Chevron’s role and that of the broader fossil fuel industry appear small. The misleading solution promoted to consumers was not to switch away from fossil fuels, but instead to implement small changes in consumer behavior with continued reliance on fossil fuel products. By portraying greenhouse gas emissions as deriving from numerous sources in addition to fossil fuels, Chevron’s ads obfuscated the fact that fossil fuels are the primary cause of increased greenhouse gas emissions and the primary driver of climate change.

189. Misleading messages were emblazoned over images of everyday Americans, as in the example highlighted below:

²²⁹ Ben Elgin, Chevron Dims the Lights on Green Power, Bloomberg (May 29, 2014), <https://www.bloomberg.com/news/articles/2014-05-29/chevron-dims-the-lights-on-renewable-energy-projects>.

²³⁰ See Duncan MacLeod, Chevron Will You Join Us?, Inspiration Room (Oct. 9, 2007), <http://theinspirationroom.com/daily/2007/chevron-will-you-join-us>. See also Jean Halliday, Chevron: We’re Not Big Bad Oil, AdAge (Sept. 28, 2007), <https://adage.com/article/news/chevron-big-bad-oil/120785>.

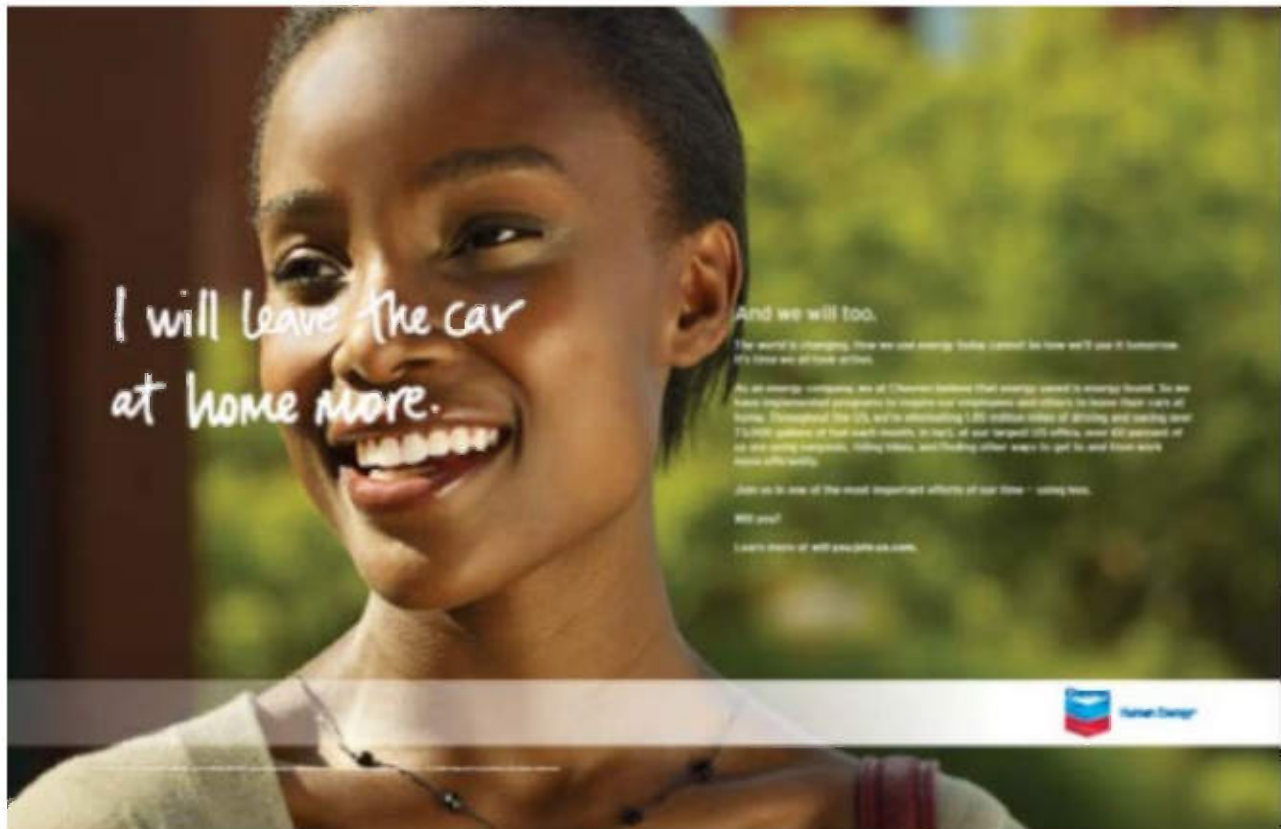


Figure 10: “Will You Join Us?” Chevron Advertisement

190. In 2010, Chevron launched an advertising campaign titled “We Agree.” The print, internet, and television ad campaign expanded across the United States and internationally. For example, the ad below highlighted Chevron’s supposed commitment to the development of renewable energy, stating in large letters next to a photo of a young girl, “It’s time oil companies get behind the development of renewable energy. We agree.” The ad emphasized: “We’re not just behind renewables. We’re tackling the challenge of making them affordable and reliable on a large scale.”



Figure 11: “We Agree” Chevron Advertisement

191. Chevron’s portrayal of itself as a renewable energy leader was false and misleading. In reality, only 0.2% of Chevron’s capital spending from 2010 to 2018 was in low-carbon energy sources, and 99.8% was in continued fossil fuel exploration and development—a stark contrast to the message communicated to consumers through the company’s advertisements.²³¹

192. Chevron’s “We Agree” campaign also featured misleading television advertisements. In one focused on renewable energy, a teacher says, “Ok, listen. Somebody has got to get serious. We need renewable energy.” To which a Chevron environmental operations employee responds, “At Chevron we’re investing millions in solar and biofuel technologies to make it work.” In reality, Chevron has continued to overwhelmingly focus on fossil fuel extraction and development, and its investment of “millions” in renewables is miniscule in comparison to its investment of billions in fossil fuels. An ordinary consumer watching the “We Agree” advertisements would be misled into believing Chevron has meaningfully invested in developing

²³¹ Raval & Hook, supra note 198.

and deploying clean technologies, whereas nearly all the company's spending is directed toward oil and gas development. Chevron's failure to inform ordinary consumers that its touted clean energy investments comprise only a miniscule percentage of its expenditures—and that it intends to ramp up fossil fuel production and sales in the future—renders these advertisements materially misleading.

v. ConocoPhillips's Misleading and Deceptive Greenwashing Campaigns

193. In 2012, ConocoPhillips released a Sustainable Development Report in which it “recognize[d] that human activity, including the burning of fossil fuels, is contributing to increased concentrations of greenhouse gases (GHG) in the atmosphere that can lead to adverse changes in global climate.”²³² The Report's goals included “[u]nderstanding our GHG footprint,” “[r]educing our GHG emissions,” and “evaluating and developing technologies for renewable energy.”²³³

194. This Report contrasts starkly with ConocoPhillips' 2012 10-K filing with SEC, which reveals the company's sole focus on producing fossil fuels for global distribution: “As an independent E&P company, we are solely focused on our core business of exploring for, developing and producing crude oil and natural gas globally.” The filing further highlighted the company's “growing North American shale and oil sands businesses . . . and a global exploration program,”²³⁴ making clear it had no intent to honor the commitments in its Sustainable Development Report.

²³² ConocoPhillips, Sustainable Development: Climate Change Position 17 (2012), <http://static.conocophillips.com/files/resources/2012-sd-report.pdf>.

²³³ Id. at 17, 20.

²³⁴ ConocoPhillips, Annual Report (Form 10-K) 32 (Dec. 31, 2012), <https://www.sec.gov/Archives/edgar/data/1163165/000119312513065426/d452384d10k.htm>.

195. Indeed, in 2019, ConocoPhillips produced over 700,000 of barrels of crude oil per day and over 2.8 million cubic feet of natural gas per day.²³⁵ ConocoPhillips’ failure to inform ordinary consumers that its touted clean energy investments comprise only a miniscule percentage of its expenditures—and that it intends to ramp up fossil fuel production and sales in the future—renders its touted sustainability targets materially misleading.

vi. API’s Misleading and Deceptive Greenwashing Campaigns

196. Acting on behalf of and under the supervision and control of the Fossil Fuel Defendants, API has also devoted considerable resources to deceiving consumers throughout the country about fossil fuels’ role in climate change. During the 2017 Super Bowl, the most-watched television program in the United States, API debuted its “Power Past Impossible” campaign, with advertisements that told Americans that the petroleum industry could help them “live better lives.” A 2018 study of the advertisements by Kim Sheehan, a Professor at the University of Oregon, concluded that the “campaign provides evidence of greenwashing through both explicit communications (such as unsubstantiated claims that ‘gas comes cleaner’ and ‘oil runs cleaner’) and implicit communications (the use of green imagery).”²³⁶

197. In lockstep with its member companies, API has also shifted its messaging from climate denial to greenwashing in the last decade. API touts its members’ purported commitments to reducing their carbon footprint while continuing its core mission of promoting its members’ extraction, production, and sale of fossil fuels to consumers in New Jersey and throughout the United States at unprecedented rates.

²³⁵ ConocoPhillips, 2019 Annual Report 168 (2019), <https://static.conocophillips.com/files/resources/2019-conocophillips-annual-report-19-0895.pdf>.

²³⁶ Kim Sheehan, This Ain’t Your Daddy’s Greenwashing: An Assessment of the American Petroleum Institute’s Power Past Impossible Campaign, in Intellectual Property and Clean Energy 301–21 (Matthew Rimmer ed., 2018).

198. Many of API's television, radio, and internet advertisements, including those directed at New Jersey consumers, lead to a website run by API entitled "America's Natural Gas and Oil: Energy for Progress." Among many articles and images promoting fossil fuel companies' claimed contributions to clean energy, the website advertises "Creating climate solutions and essential energy," and "Four Ways Energy Companies Are Protecting Land and Wildlife."²³⁷ These messages are not meant to encourage consumers to transition to low-carbon energy sources—just the opposite. By obfuscating the reality that fossil fuels are the driving force behind anthropogenic climate change, they are designed to increase consumers' use of fossil fuels in order to advance API's core mission of growing its member companies' oil and natural gas businesses.

199. In addition, in 2016, API launched a "campaign in New Jersey focused on consumers" that sought to turn public opinion against stricter standards for ethanol content in gasoline. The campaign speciously claimed that such standards would "hurt consumers and threaten to reverse America's energy renaissance which has made [it] the number one producer of oil and natural gas in the world."²³⁸

200. As part of its "Energy for Progress" campaign, API has run a series of Facebook advertisements, many of which have reached a substantial number of New Jersey consumers, that falsely paint the fossil fuel industry as a leader on climate change action. For example, in 2020, API ran advertisements with statements such as:

²³⁷ See American Petroleum Institute, 5 Ways We're Using Energy for Progress, Energy for Progress, <https://energyforprogress.org/the-basics> (last visited Oct. 17, 2022).

²³⁸ Reid Porter, API Launches New RFS Advocacy Campaign in New Jersey Focused on Consumers, American Petroleum Institute (Aug. 9, 2016), <https://www.api.org/news-policy-and-issues/news/2016/08/09/api-launches-new-rfs-advocacy-campaign-f>.

- “We can tackle climate change and meet the world’s energy needs by embracing new innovations together.”²³⁹
- “Through innovative partnerships, we’ve reduced CO2 emissions to the lowest in a generation—and now we’re working to reduce methane, too.”²⁴⁰
- “How are natural gas and oil companies helping cars emit less CO2? They’ve developed engine oils that improve fuel efficiency. See the science.”²⁴¹

G. Defendants Also Made Misleading Claims About Specific “Green” or “Greener” Fossil Fuel Products.

201. Defendants also have engaged in extensive and highly misleading marketing efforts aimed at promoting certain of their fossil fuel products as “green” and environmentally beneficial.

202. Defendants’ advertising and promotional materials fail to disclose the extreme safety risk associated with the use of fossil fuel products, which are causing “catastrophic” climate change, as understood by Defendants for decades. Defendants continue to omit that important information to this day, consistent with their goal of maintaining consumer demand for their fossil fuel products despite the risks they pose for the planet and its people.

203. Defendants misleadingly represent that consumer use of certain fossil fuel products actually helps customers reduce emissions and gain increased fuel economy. But emphasizing relative climate and “green” benefits while concealing the dangerous effects of continued high rates of fossil fuel use creates an overall misleading picture that hides the dire climate impacts resulting from normal consumer use of Defendants’ fossil fuel products. Contrary to Defendants’ “green” claims, the development, production, refining, and consumer use of Defendants’ fossil

²³⁹ See Facebook Ad Library, <https://www.facebook.com/ads/library/?id=281395386281089> (last visited Oct. 17, 2022).

²⁴⁰ See Facebook Ad Library, <https://www.facebook.com/ads/library/?id=640075440224515> (last visited Oct. 17, 2022).

²⁴¹ See Facebook Ad Library, <https://www.facebook.com/ads/library/?id=1883177471814564> (last visited Oct. 17, 2022).

fuel products (even products that may yield relatively more efficient engine performance) increase greenhouse gas emissions to the detriment of public health and consumer welfare. No matter what chemicals are added to the fuel mixture, burning gasoline always emits greenhouse gases, thereby contributing to climate change and its associated impacts. Defendants’ additive marketing cloaks their gasoline products in an environmentally friendly veneer while misleadingly concealing the hazardous climatic effects of burning fossil fuels.

204. In addition, at the same time Fossil Fuel Defendants have been actively promoting their “greener” gasoline products at New Jersey gas stations and on their company websites, Fossil Fuel Defendants have been massively expanding fossil fuel production and increasing emissions. If consumers understood the full degree to which Fossil Fuel Defendants’ products contributed to climate change and that Fossil Fuel Defendants had not in fact materially invested in alternative energy sources or were otherwise environmentally cautious, they likely would have acted differently, e.g., by not purchasing Defendants’ products or purchasing less of them.

205. In the promotion of these and other fossil fuel products, including at their branded gas stations in New Jersey, Defendants fail to disclose the fact that fossil fuels are a leading cause of climate change and that current levels of fossil fuel use—even purportedly “cleaner” or more efficient products—represent a direct threat to New Jerseyans and the environment. Defendants’ omissions in this regard are consistent with their goal of influencing consumer demand for their fossil fuel products through greenwashing. Defendants also fail to require their vendors and third-party retail outlets to disclose facts pertaining to the impact the consumption of fossil fuels and their “cleaner” alternatives have on climate change when selling Defendants’ products.

206. Defendants’ marketing of these fossil fuel products to New Jersey consumers as “safe,” “clean,” “emissions-reducing,” and impliedly beneficial to the climate—when production

and use of such products is the leading cause of climate change—is reminiscent of the tobacco industry’s effort to promote “low-tar” and “light” cigarettes as an alternative to quitting smoking after the public became aware of the life-threatening health harms associated with smoking.

207. Defendants’ product promotions are positioned to reassure consumers that the purchase and use of their products is beneficial in addressing climate change, when in truth, continued use of such fossil fuels is extremely harmful, just as the tobacco companies misleadingly promoted “low tar” and “light” cigarettes as a healthier, less harmful choice, when the tobacco companies knew any use of cigarettes was harmful.

208. As with tobacco companies’ misleading use of scientific and engineering terms in advertising to enhance the credibility of their representations, Defendants’ promotional materials for their fossil fuel products also misleadingly invoke similar terminology to falsely convey to New Jersey consumers that the use of these products benefits the environment. For example, Exxon’s advertisements of its Synergy™ and “green” Mobil 1™ products similarly referenced “meticulous[] engineer[ing],” “breakthrough technology,” “rigorously tested in the lab,” “proprietary formulation,” “test data,” “engineers,” “innovat[ion],” and the claim that “Scientists Deliver [] Unexpected Solution[s].”²⁴² Shell advertised that its Shell Nitrogen Enriched Cleaning System and V-Power Nitro+ Premium “produce[] fewer emissions” and that not using them can lead to “higher emissions.”²⁴³ BP markets its Invigorate gasoline as a “cleaning agent that helps . . . give you more miles per tank,” and “help[s] cars become clean, mean, driving machines,” and

²⁴² See, e.g., EnergyFactor by ExxonMobil, Green Motor Oil? ExxonMobil Scientists Deliver an Unexpected Solution (July 19, 2016); Exxon Mobil, Fuels, <https://www.exxon.com/en/fuels> (last visited Oct. 14, 2022).

²⁴³ See, e.g., Shell, Shell Nitrogen Enriched Gasolines, <https://www.shell.us/motorist/shell-fuels/shell-nitrogen-enriched-gasolines.html> (last visited Oct. 14, 2022).

its bp Diesel as “a powerful, reliable, and efficient fuel made” to help “reduce emissions.”²⁴⁴ Chevron advertises its Techron fuel with claims that emphasize its supposed positive environmental qualities, such as: “less is more,” “minimizing emissions,” and “up to 50% cleaner.”²⁴⁵ In a Q and A on Chevron’s website, one question says, “I care for the environment. Does Techron impact my car’s emissions?” Chevron answers that “[g]asolines with Techron” clean up carburetors, fuel injectors, and intake valves, “giving you reduced emissions.”²⁴⁶

209. These misrepresentations, which were intended to and did in fact reach and influence New Jersey consumers, were misleading because they emphasize the fuels’ supposedly environmentally beneficial qualities without disclosing the key role fossil fuels play in causing climate change.

210. As with the tobacco companies’ use of scientific terms to promote “light” cigarettes, Defendants’ claim that its purportedly high-tech new fossil fuel products help consumers reduce emissions renders their promotional materials misleading, because they seek to convey—with the imprimatur of scientific credibility—an overall message that is false, and contradicted by Defendants’ own decades-old internal knowledge regarding the dangers of fossil fuel use.

211. In addition, at the same time Defendants have been actively promoting their “greener” gasoline products at New Jersey gas stations and on their company websites, Defendants have been massively expanding fossil fuel production and increasing emissions. If consumers understood the full degree to which Defendants’ products contributed to climate change and that

²⁴⁴ See, e.g., BP, Our Fuels, https://www.bp.com/en_us/united-states/home/products-and-services/fuels.html (last visited Oct. 14, 2022).

²⁴⁵ See, e.g., Chevron, Techron, <https://www.techron.com> (last visited Oct. 14, 2022).

²⁴⁶ Id.

Defendants had not in fact materially invested in alternative energy sources or were otherwise environmentally cautious, they likely would have acted differently, e.g., by not purchasing Defendants' products or purchasing less of them.

212. Below is a selection of Defendants' fossil fuel products that they currently advertise to New Jersey consumers as environmentally beneficial, while simultaneously omitting any mention of the products' role in causing catastrophic climate change. These advertisements are representative of other advertisements and public communications, all of which are consistent with Defendants' greenwashing strategy to influence consumer demand for their products by misleading consumers to believe Defendants invest materially in and support the development of alternative energy sources and that Defendants' fossil fuel products will help consumers reduce emissions.

213. **Exxon Synergy™ Fuels**

a. In July 2016, ExxonMobil began to supply and market its Synergy™ fuel, including at the Exxon-branded gas stations in New Jersey.

b. All gasoline sold at Exxon-branded stations in New Jersey has received the Exxon Synergy additive, and therefore constitutes Exxon Synergy™ fuel.

c. In its advertisements for its Synergy fuel, including in labelling on gasoline pumps at Exxon-branded gas stations in New Jersey, which Exxon controls, Exxon claims that the fuel will "take you further," and contains more detergents than required by the Environmental Protection Agency, earning it the so-called "Top Tier" certification.

d. Similarly, Exxon advertises its Synergy Diesel Efficient fuel as the "latest breakthrough technology" and the "first diesel fuel widely available in the US" that helps "increase

fuel economy” and “[r]educe emissions and burn cleaner,” and “was created to let you drive cleaner, smarter and longer.”

e. Exxon recently began offering a new Synergy product, “Synergy Supreme+,” targeted to purchasers of so-called “premium” gasoline, including New Jersey consumers. The messaging for this product represents that Synergy Supreme+ is “Our Best Fuel Ever,” and “2X cleaner for better gas mileage.” According to Exxon, Synergy Supreme+ will enhance vehicle fuel economy in newer engines designed to meet tougher vehicle emissions standards.

f. In its advertising to consumers, Exxon emphasizes the “cleanness” and fuel efficiency benefits of its Synergy fossil fuel products, which are misleading without mention of the key role fossil fuels play in causing climate change.

214. **Exxon “Green” Mobil 1™ Motor Oil**

a. In addition to Synergy™ fuels, Exxon misleadingly promotes “green” Mobil 1™ motor oil to New Jersey consumers as an environmentally friendly product with low environmental impact.

b. ExxonMobil “green” Mobil 1™ is a synthetic oil used for engine lubrication. Synthetic oils are typically extracted from petroleum, including crude oil and its byproducts.

c. Exxon also publishes online content under the banner “Energy Factor,” wherein Exxon claims that it is “develop[ing] safe and reliable energy sources for the future.” The Energy Factor webpage includes posts such as “Green Motor Oil? ExxonMobil Scientists Deliver an Unexpected Solution,” in which Exxon promotes its green-colored motor oil, with a heading in bold typeface advertising that it can “contribute to . . . carbon dioxide emission-reduction efforts.”

d. Exxon also produced a commercial that aired nationally, including to New Jersey consumers, promoting its “green” Mobil 1 oil, which touts Mobil 1 as the “technology of tomorrow,” and “so advanced it can help advance engine performance and improve fuel economy,” all the while showing the flowing green motor oil.

e. These representations are misleading because they emphasize the fossil fuel product’s supposed environmentally beneficial qualities without disclosing the key role fossil fuels play in causing climate change.

215. Shell Nitrogen Enriched Cleaning System and Shell V-Power NITRO+ Premium

a. All grades of Shell gasoline sold in New Jersey have the Shell Nitrogen Enriched Cleaning System, and Shell introduced a line for its premium-grade gasoline called V-Power Nitro+ Premium.

b. Shell advertises on its website that these fuels “produce[] fewer emissions” and that not using them can lead to “higher emissions.”

c. This representation is misleading because it emphasizes the fuels’ supposedly environmentally beneficial qualities without disclosing the key role fossil fuels play in causing climate change.

216. BP Invigorate Fuels

a. All grades of BP gasoline sold in New Jersey have Invigorate, an additive that BP describes on its website as better than “ordinary fuels” that have problems like “increased emissions.”

b. BP’s website advertises its fuel selection as “including a growing number of lower-carbon and carbon-neutral products.”

c. These representations are misleading because they omit any mention of the products' role in causing catastrophic climate change. Additionally, they seek to influence consumer demand for their products by misleading New Jersey consumers to believe BP invests materially in low-carbon energy products and that BP's fossil fuel products will help consumers reduce emissions.

217. Chevron With Techron

a. All grades of Chevron and/or Texaco gasoline sold in New Jersey since at least 1995 have contained the additive Techron.

b. Chevron advertises its Techron fuel with claims that emphasize its supposed positive environmental qualities, such as: "less is more," "minimizing emissions," and "up to 50% cleaner."

c. In a Q and A on Chevron's website, one question says, "I care for the environment. Does Techron impact my car's emissions?" Chevron answers that "[g]asolines with Techron" clean up carburetors, fuel injectors, and intake valves, "giving you reduced emissions."

d. These representations are misleading because they emphasize the products' supposed environmentally beneficial qualities without disclosing the key role fossil fuels play in causing climate change.

H. Defendants Intended for Consumers to Rely on Their Concealments and Omissions Regarding the Dangers of Their Fossil Fuel Products.

218. Consumer use of fossil fuel products, particularly by driving gasoline-powered cars and other vehicles, is a significant contributor to climate change. However, as a result of Defendants' sustained and widespread campaign of disinformation, many New Jersey consumers

have been unaware of the magnitude of the threat posed by their use of fossil fuels, or of the relationship between their purchasing behavior and climate change.

219. Defendants have been aware for decades that clean energy presents a feasible alternative to their fossil fuel products. In 1980, Exxon forecasted that non-fossil fuel energy sources, if pursued, could penetrate half of a competitive energy market in approximately 50 years.²⁴⁷ This internal estimate was based on extensive modeling within the academic community, including research conducted by MIT's David Rose which concluded that a transition to non-fossil energy could be achieved in around 50 years. Exxon circulated an internal memo approving of Rose's conclusions, stating they were "based on reasonable assumptions."²⁴⁸ But instead of pursuing a clean energy transition or warning the public about the dangers of burning fossil fuels, Defendants chose to deceive consumers to preserve their profits and assets.

220. By misleading New Jersey consumers about the climate impacts of using fossil fuel products, even to the point of claiming that certain of their products may benefit the environment, and by failing to disclose to consumers the climate risks associated with their purchase and use of those products, Defendants have deprived and are continuing to deprive consumers of information about the consequences of their purchasing decisions.

221. In addition to Defendants misleading New Jersey consumers by affirmatively misrepresenting the state of their and the scientific community's knowledge of climate change and by failing to disclose the dangerous effects of using their products, Defendants have sought to mislead consumers, and induce purchases and brand affinity, with greenwashing advertisements

²⁴⁷ H. Shaw and P. P. McCall, Exxon Research and Engineering Company's Technological Forecast: CO2 Greenhouse Effect 5 (Dec. 18, 1980).

²⁴⁸ CO2 Greenhouse Effect: A Technical Review, Coordination and Planning Division, Exxon Research and Engineering Company 18 (Apr. 1, 1982).

designed to represent Defendants as environmentally responsible companies developing innovative green technologies and products. In reality, Defendants' investment in renewable energy sources is miniscule, and their business models continue to center on developing, producing, and selling more of the very same fossil fuel products driving climate change.

222. Defendants intended for New Jersey consumers to rely on their omissions and concealments and to continue purchasing Defendants' fossil fuel products without regard for the damage such products cause.

223. Knowledge of the risks associated with the routine use of fossil fuel products is material to New Jersey consumers' decisions to purchase and use those products. As with cigarettes, history demonstrates that when consumers are made aware of the harmful effects or qualities of the products they purchase, they often choose to stop purchasing them, to reduce their purchases, or to make different purchasing decisions. This phenomenon holds especially true when products have been shown to harm public health or the environment. For example, increased consumer awareness of the role of pesticides in harming human health, worker health, and the environment has spurred a growing market for food grown organically and without the use of pesticides. With access to information about how their food is grown, consumers have demanded healthier choices, and the market has responded.

224. For example, a consumer who received accurate information that fossil fuel use was a primary driver of climate change and the resultant dangers to the environment and people might purchase less fossil fuel products, or decide to buy none at all. Consumers might opt to avoid or combine car travel trips; carpool; switch to more fuel-efficient vehicles, hybrid vehicles, or electric vehicles; use a car-sharing service; seek transportation alternatives all or some of the time, if available (e.g., public transportation, biking, or walking); or adopt any combination of these

choices. In addition, informed consumers contribute toward solving environmental problems by supporting companies that they perceive to be developing “green” or more environmentally friendly products.

225. By concealing and affirmatively misrepresenting the catastrophic climatic effects of consuming fossil fuels, Defendants deprived consumers of the facts necessary to make informed decisions about how and where to purchase energy. Consumers equipped with complete and accurate knowledge about the public health risks of burning fossil fuels might have formed a receptive customer base for clean energy alternatives decades before such demand in fact developed. The delayed emergence of a scalable market for non-fossil fuel energy is attributable to consumers’ industry-induced ignorance of the reality and severity of the climatic consequences associated with normal use of fossil fuels. The societal transition to a low-carbon economy would have been far cheaper and more efficient had Defendants publicly acknowledged the conclusions reached by their own scientists and the broader scientific community. As a result of this delay, huge quantities of avoidable greenhouse gas emissions have been released into the atmosphere, causing greater total emissions, higher peak emissions, and all associated climatic effects.

I. Defendants’ Deceit Only Recently Came to Light, and Their Misconduct Is Ongoing.

226. The fact that Defendants and their proxies knowingly provided incomplete and misleading information to the public, including New Jersey consumers, only recently became discoverable due to, among other things:

- a. Defendants’ above-described campaign of deception, which continues to this day;
- b. Defendants’ efforts to discredit climate change science and create the appearance such science is uncertain;

- c. Defendants' concealment and misrepresentations regarding the fact that their products cause catastrophic harms; and
- d. Defendants' use of front groups such as API, the Global Climate Coalition, and the National Mining Association to obscure their involvement in these actions, which put the State off the trail of inquiry.

227. Moreover, Defendants' tortious misconduct—in the form of misrepresentations, omissions, and deceit—began decades ago and continues to this day. As described above, Defendants, directly and/or through membership in other organizations, continue to misrepresent their own activities, the fact that their products cause climate change, and the danger presented by climate change. Exemplars of Defendants' continuing misrepresentations, omissions, and deceit follow below.

228. As recently as June 2018, a post on the official Shell blog stated: "the potential extent of change in the climate itself could now be limited. In other words, the prospect of runaway climate change might have passed."²⁴⁹ However, this statement is not supported by valid scientific research, and was and is contradicted by various studies.²⁵⁰

²⁴⁹ David Hone, Has Climate Change Run Its Course??, Shell Climate Change Blog (June 14, 2018), <https://blogs.shell.com/2018/06/14/has-climate-change-run-its-course>.

²⁵⁰ See, e.g., Fiona Harvey, Carbon Emissions from Warming Soils Could Trigger Disastrous Feedback Loop, The Guardian (Oct. 5, 2017), <https://www.theguardian.com/environment/2017/oct/05/carbon-emissions-warming-soils-higher-than-estimated-signalling-tipping-points>; Jonathan Watts, Domino-Effect of Climate Events Could Move Earth into a 'Hothouse' State, The Guardian (Aug. 7, 2018), <https://www.theguardian.com/environment/2018/aug/06/domino-effect-of-climate-events-could-push-earth-into-a-hothouse-state>; Fiona Harvey, 'Tipping Points' Could Exacerbate Climate Crisis, Scientists Fear, The Guardian (Oct. 9, 2018), <https://www.theguardian.com/environment/2018/oct/09/tipping-points-could-exacerbate-climate-crisis-scientists-fear>.

229. In March 2018, Chevron issued a report entitled “Climate Change Resilience: A Framework for Decision Making,” which misleadingly stated that “[t]he IPCC Fifth Assessment Report concludes that there is warming of the climate system and that warming is due in part to human activity.”²⁵¹ In reality, the Fifth Assessment report concluded that “[i]t is extremely likely [defined as 95–100% probability] that human influence has been the dominant cause of the observed warming since the mid-20th century.”²⁵²

230. Despite this fact, in April 2017, Chevron CEO and Chairman of the Board John Watson said on a podcast, “There’s no question there’s been some warming; you can look at the temperatures data and see that. The question and debate is around how much, and how much is caused by humans.”²⁵³

231. Similarly, ConocoPhillips’s “Climate Change Position” as it appeared on the company’s website through 2020 stated that human activity is “contributing to” climate change and emphasizes “uncertainties,” even though the science is clear: “ConocoPhillips recognizes that human activity, including the burning of fossil fuels, is contributing to increased concentrations of greenhouse gases (GHG) in the atmosphere that can lead to adverse changes in global climate. . . . While uncertainties remain, we continue to manage greenhouse gas emissions in our operations and to integrate climate change related activities and goals into our business planning.”²⁵⁴

²⁵¹ Chevron, Climate Change Resilience: A Framework for Decision Making 20 (Mar. 2018), <https://www.chevron.com/-/media/shared-media/documents/climate-change-resilience.pdf>.

²⁵² IPCC, Summary for Policymakers: Working Group I Contribution to the Fifth Assessment Report 17 (2013), https://www.ipcc.ch/site/assets/uploads/2018/02/WG1AR5_SPM_FINAL.pdf.

²⁵³ Columbia Energy Exchange Podcast, John Watson, CEO, Chevron (Apr. 10, 2017), <https://www.energypolicy.columbia.edu/us-energy-markets-policy>.

²⁵⁴ ConocoPhillips, Climate Change Position (Oct. 28, 2020), <https://web.archive.org/web/20201028115814/https://www.conocophillips.com/sustainability/int>

232. In 2015, then-Exxon Mobil CEO Rex Tillerson argued that climate models were not strong enough to justify a shift away from fossil fuels, saying: “What if everything we do, it turns out our models are lousy, and we don’t get the effects we predict? Mankind has this enormous capacity to deal with adversity, and those solutions will present themselves as those challenges become clear.”²⁵⁵

J. The State Has Suffered, Is Suffering, and Will Suffer Injuries from Defendants’ Wrongful Conduct.

233. Defendants’ individual and collective conduct—including, but not limited to: their failures to warn of the threats fossil fuel products posed to the world’s climate; their wrongful promotion of fossil fuel products and their concealment of known hazards associated with the use of those products; and their public deception campaigns designed to obscure the connection between their products and climate change and its environmental, physical, social, and economic consequences—is a direct and proximate cause that brought about or helped bring about climate change and consequent harms to New Jersey. Such harms include: sea-level rise and attendant flooding, erosion, damage to riparian lands and submerged lands, and loss of wetlands and beaches; increased frequency and intensity of extreme weather events, including coastal and inland storms and associated flooding, drought, extreme heat, extreme precipitation events, wildfires, habitat loss, species impacts, and others; ocean warming and acidification; and the cascading social, economic, health, and other consequences of these environmental changes. These adverse

egrating-sustainability/sustainable-development-governance/policies-positions/climate-change-position/.

²⁵⁵ Dallas Morning News, Exxon CEO: Let’s Wait for Science to Improve Before Solving Problem of Climate Change (May 27, 2015), <https://www.dallasnews.com/business/energy/2015/05/28/exxon-ceo-let-s-wait-for-science-to-improve-before-solving-problem-of-climate-change>.

impacts will continue to increase in frequency and severity in New Jersey and disproportionately impact Overburdened Communities.²⁵⁶

234. As actual and proximate results of Defendants' conduct, which was a substantial factor in bringing about the aforementioned environmental changes, the State has suffered and will continue to suffer severe harms and losses, including but not limited to: injury or destruction of State-owned or -operated facilities and property deemed critical for operations, utility services, and risk management, as well as other assets that are essential to community health, safety, and well-being; increased planning and preparation costs for community adaptation and resilience to climate change's effects; and increased costs associated with public health impacts, environmental impacts, and economic impacts.

235. The State already has incurred, and will foreseeably continue to incur, injuries and damages due to the climate crisis caused by Defendants' tortious and deceptive conduct, as described in this Complaint. As a result of Defendants' wrongful conduct, New Jersey has experienced, is experiencing, and will experience significant adverse impacts, including, but not limited to, the following:

a. As a state with a large and economically important coastline, New Jersey is particularly vulnerable to severe harms from sea-level rise. The rate of sea-level rise in New Jersey has exceeded the global rate over the last several decades, and New Jersey will experience significant additional and accelerating sea-level rise over the coming decades.²⁵⁷ By 2050, there is a 50% chance New Jersey experiences sea-level rise that meets or exceeds 1.4 feet, and a 17%

²⁵⁶ See, e.g., 2020 New Jersey Scientific Report on Climate Change; New Jersey Human Health Addendum.

²⁵⁷ 2020 New Jersey Scientific Report on Climate Change at 44.

chance that sea-level rise exceeds 2.1 feet, which will be experienced regardless of present and ongoing efforts to reduce greenhouse gas emissions.²⁵⁸ By the end of the century, those numbers rise to 3.3 and 5.1 feet, respectively, under a moderate emissions scenario.²⁵⁹ More than 352,000 New Jersey residents are at risk of coastal flooding, and many thousands more will face flooding risk in the coming decades.²⁶⁰ Eighty percent of New Jersey residents live in the coastal zone, which is especially vulnerable to flooding from sea-level rise.²⁶¹ As the sea level has risen, the occurrence of high-tide floods also has increased in recent years. In Atlantic City, the frequency of tidal flooding events has increased from an average of one per year in the 1950s to an average of eight per year from 2007 to 2016.²⁶² By the year 2100, it is extremely likely (i.e., a greater than 95% chance) that Atlantic City will experience high-tide flooding at least 95 days per year.²⁶³ Saltwater intrusion from sea-level rise is also expected to impair water quality in coastal groundwater aquifers, as well as surface water supplies, as the salt front moves upstream.²⁶⁴ Water quality will also be degraded as rising sea levels submerge sewer discharge points, allowing contaminants to move into waterways and the surrounding environment.²⁶⁵ Industrial sites located in coastal areas will be at a greater risk of pollutant discharge into the State's waters.²⁶⁶

²⁵⁸ Id. at 43.

²⁵⁹ Ibid.

²⁶⁰ See States at Risk, New Jersey Coastal Flooding, <https://statesatrisk.org/new-jersey/coastal-flooding> (last visited Oct. 17, 2022).

²⁶¹ State of New Jersey, State of New Jersey Climate Change Resilience Strategy 98 (Oct. 12, 2021), <https://www.nj.gov/dep/climatechange/docs/nj-climate-resilience-strategy-2021.pdf>.

²⁶² 2020 New Jersey Scientific Report on Climate Change at 45.

²⁶³ Ibid.

²⁶⁴ Id. at xi.

²⁶⁵ Ibid.

²⁶⁶ Ibid.

b. The destructive force and flooding potential from storm surges during coastal storms and other weather events have increased as the mean sea level of New Jersey has increased, and the combined effects of storm surge and sea-level rise will continue to exacerbate flooding impacts on the State. Even if all carbon emissions were to cease immediately, New Jersey would continue to experience sea-level rise due to the greenhouse gases already emitted and the lag time between emissions and sea-level rise. In fact, sea-level rise projections through 2050 do not take into account future emissions, meaning that New Jersey's coastal communities will face increasing sea-level rise in the coming decades even if emissions decrease.²⁶⁷

c. Climate change is expected to significantly alter the frequency and intensity of precipitation events in New Jersey. By 2100, annual precipitation levels in New Jersey are expected to rise between 6% and 9%,²⁶⁸ while the amount of precipitation in a 100-year storm event is projected to increase by up to 50% in northern counties.²⁶⁹ The state is already witnessing this effect, as total annual precipitation in New Jersey has been about 3.7 inches above the long-term average for the past 16 years.²⁷⁰ Over the past 50 years, extreme rainstorms in New Jersey increased by 55%, more than anywhere else in the United States.²⁷¹ This rise in precipitation levels

²⁶⁷ Robert Kopp et al., New Jersey's Rising Seas and Changing Coastal Storms: Report of the 2019 Science and Technical Advisory Panel at 28 (Nov. 2019), https://climatechange.rutgers.edu/images/STAP_FINAL_FINAL_12-4-19.pdf.

²⁶⁸ T. Wang et al., AdaptWest Project, Gridded Current and Projected Climate Data for North America at 1km Resolution, Generated Using the ClimateNA V7.01 Software (2022).

²⁶⁹ Art DeGaetano, Projected Changes in Extreme Rainfall in New Jersey Based on an Ensemble of Downscaled Climate Model Projections (Oct. 2021), <https://www.nj.gov/dep/dsr/publications/projected-changes-rainfall-model.pdf>.

²⁷⁰ Runkle et al., New Jersey State Climate Summary 2022 at 1–5.

²⁷¹ D.R. Easterling et al., 2017: Precipitation Change in the United States, in Climate Science Special Report: Fourth National Climate Assessment, Volume I 207–230 (D. J. Wuebbles et al eds., 2017).

has subjected and will subject New Jersey residents to more frequent and severe flooding events, such as the major floods that inundated the State in 2000, 2004, 2005, 2006, 2007, 2010, 2011, 2012, and 2016.²⁷² Additionally, extreme precipitation events will degrade water quality as increased runoff deposits excess sediment and contaminants into the State's surface water, thereby causing eutrophic conditions and increasing the potential for harmful algal blooms.²⁷³

d. The State has incurred significant costs on projects to address sea-level rise, including but not limited to: conducting comprehensive surveys of sea-level rise threats to the State, analyzing sea-level rise in certain transportation infrastructure projects, incorporating sea-level rise as a core criterion in storm and flood reduction and coastal resilience projects, funding local resilience planning efforts for coastal communities, providing floodplain management assistance to local communities, buying out homes located in flooding zones, rebuilding beaches and barrier islands along the Atlantic coastline, restoring coastal wetlands and sea grass beds, and incurring past and future cost commitments of approximately 2.5 billion dollars for flood resilience and shore protection projects.

e. Climate change is causing more extreme weather events in New Jersey, with attendant physical and environmental consequences, including coastal flooding, coastal erosion, inland flooding, extreme heat events, and drought.²⁷⁴ Coastal storms have already caused tens of billions of dollars in damages in New Jersey, along with floods, power outages, sewage spills, and other disasters. In October 2012, Superstorm Sandy slammed into New Jersey, causing widespread inundation and almost thirty billion dollars in damage. In addition to causing thirty-eight deaths, Sandy's economic toll on New Jersey included \$7.8 billion in property damage and \$833 million

²⁷² 2020 New Jersey Scientific Report on Climate Change at 42.

²⁷³ Id. at xi.

²⁷⁴ See generally id.

in lost wages for its residents, \$3.56 billion in lost sales and structural damage for the commercial sector, and \$2.2 billion in damage to public buildings and infrastructure as well as emergency municipal expenses.²⁷⁵ The National Oceanic and Atmospheric Administration (“NOAA”) estimates that the storm caused a total of \$29.4 billion in damage to New Jersey and destroyed or damaged approximately 72,000 buildings in the State.²⁷⁶ The destruction wrought by Superstorm Sandy was exacerbated by the effects of climate change: sea-level rise over the past century allowed its storm surge to affect 71,000 additional people overall, adding \$8 billion in damages to Sandy’s toll on the northeast United States.²⁷⁷ In the coming decades, increased rainfall and windspeeds during already-destructive coastal storms will cause even more severe damage to public and private property, infrastructure, and natural resources in New Jersey. Today, less severe storms than Superstorm Sandy will produce similar flooding impacts. Compared to the conditions of 1950, flood levels reached by Sandy could reoccur in one- to two-thirds less time.²⁷⁸ This century, the time between Sandy-level flooding events is expected to decrease by 3 to 17 times.²⁷⁹ Just last year, Hurricane Ida caused at least thirty deaths in New Jersey,²⁸⁰ along with an estimated

²⁷⁵ Stephanie Hoopes Halpin, PhD, Rutgers School of Public Affairs and Administration, The Impact of Superstorm Sandy on New Jersey Towns and Households 8–9 (Oct. 25, 2013), <https://rucore.libraries.rutgers.edu/rutgers-lib/44886/PDF/1/play/>.

²⁷⁶ NOAA, Storm Events Database: Tropical Storm Sandy in New Jersey, <https://www.ncdc.noaa.gov/stormevents/eventdetails.jsp?id=416939> (last visited Oct. 14, 2022).

²⁷⁷ Ayesha Tandon, Hurricane Sandy Caused an ‘Extra \$8bn’ Damage Due to Human-Caused Sea-Level Rise, CarbonBrief (May 18, 2021), <https://www.carbonbrief.org/hurricane-sandy-caused-an-extra-8bn-damage-due-to-human-caused-sea-level-rise/#:~:text=More%20than%20%248bn%20of,%2460bn%20of%20economic%20damage>.

²⁷⁸ William V. Sweet et al., Hurricane Sandy Inundation Probabilities Today and Tomorrow, 94(9) Bull. Am. Meteorological Soc’y S17–S20 (2013).

²⁷⁹ Ning Lin et al., Hurricane Sandy’s Flood Frequency Increasing from Year 1800 to 2100, PNAS (Oct. 10, 2016), <https://doi.org/10.1073/pnas.1604386113>.

²⁸⁰ Tully, He Was Swept Down a Sewer Pipe: ‘I Just Let the Water Take Me.’

\$2.02 billion in damage statewide,²⁸¹ including \$83.6 million in damage to New Jersey schools alone.²⁸²



Figure 12: Atlantic City Inundated by Superstorm Sandy Storm Surge²⁸³

²⁸¹ Mike Deak, A Year Since Hurricane Ida: Horror, Heroism, Anxiety Awaiting the Next Catastrophic Storm, My Central Jersey (Sept. 1, 2022), <https://www.mycentraljersey.com/story/news/local/2022/09/01/nj-hurricane-ida-floods-deaths/65418809007/>.

²⁸² Jackie Roman, Ida caused \$83.6M in damage to 49 N.J. Schools. They have to Pay Up Front Before FEMA Aid, NJ.com (Dec. 14, 2021), <https://www.nj.com/news/2021/12/ida-caused-836m-in-damage-to-49-nj-schools-but-they-have-to-pay-up-front-before-fema-aid.html>.

²⁸³ N.J. Dep't of Env'tl. Prot., Coastal Vulnerability Assessment: Atlantic City, NJ 6 (May 2017), <https://www.nj.gov/dep/bcrp/docs/cva/atlantic-city-cva-final-05-2017.pdf>.



Figure 13: House in Mantoloking Knocked Off Foundation by Superstorm Sandy Storm Surge²⁸⁴



Figure 14: Hoboken Underwater due to Superstorm Sandy Storm Surge²⁸⁵

²⁸⁴ New Jersey Department of Environmental Protection (2012).

²⁸⁵ Photograph taken at the intersection of Adams Street and Newark Street in Hoboken. New Jersey Department of Environmental Protection (Oct. 2012).

f. The impacts of these extreme weather events are exacerbated where flooding in residential areas is coincident with environmental contamination from factories, warehouses, power plants, chemical refineries, and already-polluted sites, including New Jersey's 114 Superfund sites—the most in the nation.

g. Oceans are acidifying at an alarming rate because of fossil-fuel burning, endangering New Jersey's coastal ecosystems and economy. Acidity levels have already increased by roughly 30% since the Industrial Revolution, and they are expected to rise at a faster rate over time.²⁸⁶ This radical change in ocean chemistry has serious and far-reaching consequences. For example, the accumulation of carbonic acid in coastal waters threatens the survival of organisms that build shells and skeletons from calcium carbonate—including commercially important shellfish species for New Jersey (e.g., hard clams, scallops, and oysters). Acidification also risks destabilizing whole marine ecosystems by altering the behavior, growth, reproduction, and migration patterns of critical aquatic organisms. New Jersey is particularly vulnerable to the effects of human-caused ocean acidification, as its identity, industries, and economy are closely intertwined with its coastal waters. Indeed, southern New Jersey counties rank second in the United States in economic dependence on shelled mollusks.²⁸⁷ Fisheries play an important role in New Jersey's recreational and commercial opportunities, valued at approximately \$2 billion per year.²⁸⁸ Ocean acidification threatens the survival of these fisheries.²⁸⁹

²⁸⁶ 2020 New Jersey Scientific Report on Climate Change at x.

²⁸⁷ Ibid.

²⁸⁸ N.J. Dep't of Env'tl. Prot. Bureau of Marine Fisheries, Flipping the Switch on Ecosystem Management: Studying the Delaware River – 2019 Report (June 9, 2021), <https://www.nj.gov/dep/fgw/marfhome.htm>.

²⁸⁹ State of New Jersey Climate Change Resilience Strategy at 36.

h. The average air temperature has increased and will continue to increase in New Jersey due to climate change. New Jersey has already experienced a nearly 4°F (2.22°C) increase in average annual temperature (between 1895 and 2021),²⁹⁰ which is faster than the rest of the Northeast region.²⁹¹ The rate of warming in New Jersey has also increased since 1970.²⁹² By 2050, temperatures in New Jersey are expected to increase by between 4.1°F and 5.7°F (2.3°C to 3.2°C).²⁹³ Warming air temperatures have led and will lead to poorer air quality, more heat waves, expanded pathogen and pest ranges, disruption to agricultural production, greater need for irrigation for agricultural production, thermal stress for native flora and fauna, increased forest fires (especially in the Pinelands), increased electricity demand from increased air conditioning usage, and threats to human health—such as from heat stroke and dehydration, due to increased evaporation and demand, and increased allergen exposure. Rising air temperatures will increase ground-level concentrations of ozone and particulate matter, raising the incidence of serious health risks like respiratory distress, cancer, chronic obstructive pulmonary disease (“COPD”), and cardiovascular disease among New Jersey residents, particularly among Overburdened Communities, children, the elderly, and other vulnerable populations.²⁹⁴

²⁹⁰ James Shope et al., Rutgers, The State University of New Jersey, State of the Climate: New Jersey 2021 8 (2022), <https://njclimateresourcecenter.rutgers.edu/wp-content/uploads/2022/04/State-of-the-Climate-Report-NJ-2021-4-18.pdf>.

²⁹¹ 2020 New Jersey Scientific Report on Climate Change at vii.

²⁹² Id. at 32.

²⁹³ Ibid.

²⁹⁴ Id. at x; see also N.J. Dep’t of Env’tl. Prot., New Jersey Human Health Addendum at 12–13, 16, 20.

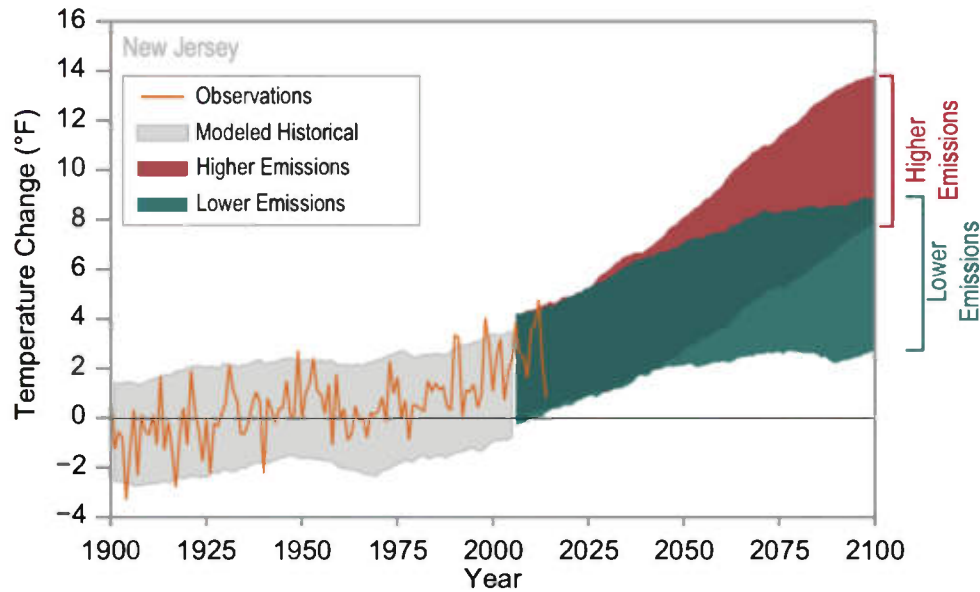


Figure 15: Projected New Jersey Temperature Increases²⁹⁵

i. More than 180,000 New Jerseyans are especially vulnerable to extreme heat due to their age or economic status.²⁹⁶ Due to systemic inequities, Overburdened Communities are particularly vulnerable to extreme heat events. Pregnant women exposed to high temperatures or air pollution are more likely to have children who are premature, underweight, or stillborn, and African-American mothers and babies are harmed at a much higher rate than the population at large.²⁹⁷ The urban heat island effect, which affects urban areas across New Jersey, exacerbates the health impacts of extreme heat on Overburdened Communities in those areas. New Jerseyans

²⁹⁵ Jennifer Runkle et al., New Jersey State Climate Summary, NOAA Technical Report NESDIS 149-NJ (2017), <https://statesummaries.ncics.org/chapter/nj/>.

²⁹⁶ See States at Risk, New Jersey Extreme Heat, <https://statesatrisk.org/new-jersey/extreme-heat> (last visited Oct. 17, 2022).

²⁹⁷ Christopher Flavelle, Climate Change Tied to Pregnancy Risks, Affecting Black Mothers Most, N.Y. Times (June 18, 2020), <https://www.nytimes.com/2020/06/18/climate/climate-change-pregnancy-study.html>.

who face housing insecurity are also more vulnerable to the extreme temperatures and air pollution exacerbated by climate change.

j. New Jersey's wetlands are already facing, and will continue to face, significant damage due to climate change. Rising sea levels are already inundating freshwater wetlands, creating "ghost forests"—i.e., stands of dead trees surrounded by transitional marshes.²⁹⁸ Coastal wetlands are threatened with deterioration and area loss in the face of accelerating rates of sea-level rise.²⁹⁹ By the end of the century, New Jersey may lose 92% of brackish marshes, 32% of tidal swamps, and 6% of tidal fresh marshes in the Delaware Estuary.³⁰⁰ New Jersey's wetlands provide valuable ecosystem services to the State, including by filtering water contaminants, mitigating storm damage by absorbing floodwaters, and supporting the State's fishing and hunting industries.³⁰¹ Marshes play a critical role in protecting back bay communities—including residents, their property, and community infrastructure—from flooding brought about by waves and storm surges.³⁰² For instance, one study estimated that coastal marshes spared more than \$625 million in damage during Superstorm Sandy.³⁰³

²⁹⁸ 2020 New Jersey Scientific Report on Climate Change at xii.

²⁹⁹ L. Haaf et al., Sediment Accumulation, Elevation Change, and the Vulnerability of Tidal Marshes in the Delaware Estuary and Barnegat Bay to Accelerated Sea-Level Rise, 45(2) Estuaries and Coasts 413–27 (2022); J.S. Weis et al., The Status and Future of Tidal Marshes in New Jersey Faced with Sea-Level Rise, 4(1) Anthropocene Coasts 168–92 (2021).

³⁰⁰ 2020 New Jersey Scientific Report on Climate Change at xii.

³⁰¹ Amanda O'Lear et al. New Jersey Climate Change Alliance, Wetland Resource Considerations for a New Jersey Natural and Working Lands Strategy, 4 (Feb. 2022), https://njadapt.rutgers.edu/images/NJCCA_NWL_Wetlands_Report_FINAL.pdf.

³⁰² State of New Jersey Climate Change Resilience Strategy at 88.

³⁰³ Siddharth Narayan et al., Lloyd's Tercentenary Research Foundation, London Coastal Wetlands and Flood Damage Reduction: Using Risk Industry-based Models to Assess Natural Defenses in the Northeastern USA 2 (2016).

k. Further, the State's wetlands act as carbon sinks, removing more carbon from the atmosphere than they emit and storing it in vegetation and soil.³⁰⁴ Loss of wetlands through sea-level rise will result in the release of stored carbon and degraded capacity to store CO₂, thereby increasing New Jersey's carbon emissions.

l. New Jersey's forests, which comprise 40% of the State's land area, are vulnerable to the consequences of a warming climate. Increased instances of drought will likely stress the State's forests, especially moisture tolerant species like maples.³⁰⁵ Pests and invasive species are also expected to take advantage of warmer temperatures to spread into new areas. Pine forests will be particularly vulnerable to infestation by the southern pine beetle, which has the potential to kill tens of thousands of acres.³⁰⁶ Indeed, southern pine beetle outbreaks have been recorded in New Jersey since 2000, and the pests continue to move steadily northward because of higher winter temperatures.³⁰⁷ In addition, rising temperatures and more frequent droughts could lead to a longer and more intense wildfire season. The Pinelands area of southern New Jersey is vulnerable to wildfires, as most of the area is classified as a high to extreme fire hazard level.³⁰⁸

m. Climate change is stressing important natural and cultural resources in New Jersey. New Jersey is home to 2,100 native plant species, including several globally rare species (e.g., sea-level fens and Atlantic white cedar); a little over 800 rare or endangered species; and several plant species that are found nowhere else in the world (e.g., Hammond's yellow spring

³⁰⁴ Id. at 16.

³⁰⁵ 2020 New Jersey Scientific Report on Climate Change at xii.

³⁰⁶ Ibid.

³⁰⁷ Id. at 91.

³⁰⁸ Ibid.

beauty and bog asphodel).³⁰⁹ Climate change represents a substantial threat to many of these rare or endangered species. At least 50 rare plant species in New Jersey are considered vulnerable to climate change due to shrinking wetlands and increased temperatures.³¹⁰ Unique habitats like the maritime forests found on New Jersey's barrier islands and endangered species like the Nantucket serviceberry are particularly vulnerable to sea-level rise, flooding, and erosion caused by climate change.³¹¹ Atlantic white cedar, a globally rare species, grows in low-lying coastal areas but is completely intolerant of saltwater, making it extremely susceptible to rising seas.³¹² Moreover, 29% of New Jersey's 248 bird species are vulnerable to climate change, including the American Goldfinch—the state bird of New Jersey.³¹³ Shorebirds like Common Terns, Red Knots, and Saltmarsh Sparrows are more vulnerable to climate change than other bird species.³¹⁴ Saltmarsh Sparrows, a globally endangered species, may reach quasi-extinction population numbers by 2040 due to habitat loss from sea-level rise.³¹⁵ New Jersey is an important area to migratory birds, with harm to New Jersey wetlands and coastal areas disrupting the reproductive success of many migratory birds.³¹⁶

n. By driving up temperatures and precipitation levels, climate change will have major impacts on agriculture in New Jersey. As winter season temperatures increase, New Jersey may no longer experience the periods of winter chill needed for certain plant species to

³⁰⁹ Id. at 122.

³¹⁰ Ibid.

³¹¹ Id. at xiv.

³¹² Ibid.

³¹³ Ibid.

³¹⁴ Ibid.

³¹⁵ Ibid.

³¹⁶ Id. at 124.

produce fruit. Blueberries and cranberries—both New Jersey specialty crops that form a substantial portion of the state’s agricultural economy—depend on a long winter chill for optimal flowering and fruit development.³¹⁷ Increased ground-level ozone caused by rising temperatures will also slow the growth of crops and render them more susceptible to disease.³¹⁸ Moreover, changes in the frequency and intensity of precipitation will negatively affect crops by reducing growth, delaying spring planting, washing out planted crops, and increasing root disease through contact with wet soils.³¹⁹ In terms of livestock, higher temperatures will very likely negatively reduce productivity in summer months, as dairy cows produce less milk when temperatures exceed 75°F.³²⁰ As a result, New Jersey is expected to suffer a \$3.3 million loss to its dairy industry per year by the end of the century.³²¹

o. Rising sea levels and changing marine habitat conditions have and will continue to affect New Jersey’s fisheries. Because fish are cold-blooded, warming oceans alter the reproduction, growth, and survival of fish traditionally caught along the mid-Atlantic coast. Many important commercial and recreational species, such as summer flounder, lobster, and black sea bass, have shifted northward toward colder waters.³²² In addition, the loss of New Jersey’s coastal wetlands and estuaries may shrink the population of many commercially important fish species,

³¹⁷ Id. at 81.

³¹⁸ Id. at 82.

³¹⁹ Ibid.

³²⁰ Id. at 83.

³²¹ Ibid.

³²² Zoe Kitchel and Douglas Zemeckis, Climate Change Impacts on New Jersey’s Marine Fisheries, Rutgers Cooperative Extension Bulletin E369 (June 2021), <https://njaes.rutgers.edu/e369/#:~:text=Rising%20sea%20levels%20have%20the,as%20summer%20and%20winter%20flounder.>

which rely on wetlands to host larval fish during early life stages.³²³ Many economically significant fish species are classified as highly sensitive to climate change in the mid-Atlantic region, including Atlantic cod and winter flounder.³²⁴ Sea-level rise and associated flooding will also place fishing infrastructure at risk, such as docks and marinas, processing and storage facilities, and transportation routes on the seafood supply chain.³²⁵

p. Sea-level rise, tidal and inland flooding, storms, wildfires, and other hazards also threaten to destroy or impair access to both public and private property in New Jersey.³²⁶ Storm surges and flooding threaten to render portions of State property unusable. Private property loss and displacement resulting from catastrophic climate events increases the potential for mental illnesses including post-traumatic stress disorder, depression, and insomnia, and the fragmenting of communities from such events can also have negative mental health impacts.³²⁷ Low-income New Jerseyans with fewer resources to evacuate face higher risks of experiencing inhospitable living conditions following such events.³²⁸

q. The tourism industry in New Jersey will also be significantly affected by rising seas, loss of coastland, and increased flooding. Tourism contributes \$30 billion to New Jersey's economy each year, 70% of which comes from the state's coastal counties.³²⁹ As sea

³²³ Id.

³²⁴ Id.

³²⁵ Id.

³²⁶ See State of New Jersey Climate Change Resilience Strategy at 77; 2020 New Jersey Scientific Report on Climate Change at ii, 91–93; New Jersey Human Health Addendum at 16.

³²⁷ New Jersey Human Health Addendum at 39–40.

³²⁸ Ibid.

³²⁹ N.J. Dep't of Env'tl. Prot., DEP Combats Threat of Global Warming and Climate Change, Focus DEP 1 (Fall 2008), https://www.nj.gov/dep/focus/pdfs/0808global_warming.pdf; see also State of New Jersey Climate Change Resilience Strategy at 77.

levels continue to rise, the state's beaches will continue to erode and its coastal communities will have to contend with more frequent flooding that puts recreational infrastructure at risk. Loss of tidal wetlands, which provide more than \$2.18 billion per year in ecosystem services,³³⁰ severely jeopardizes crab, fish, and bird populations, further threatening New Jersey's recreational and commercial fishing and ecotourism industries.³³¹

r. Climate change has caused and will cause significant public health-related injuries to New Jersey and its residents.³³² Greater numbers of extreme heat events in New Jersey will result in increased risk of heat-related illnesses (from mild heat stress to fatal heat stroke) and the exacerbation of pre-existing conditions in the medically fragile, chronically ill, and vulnerable. In New Jersey, heat-related hospital admissions during the warm season (May to September) increased approximately 156% between 2004 and 2013.³³³ Heavy precipitation, sea-level rise, and extreme weather events will lead to more frequent flooding events, which cause death and injury in addition to secondary health risks such as damage to sanitation infrastructure, aggravation of chronic diseases, and contamination of drinking water.³³⁴ These risks are particularly acute for New Jersey because 80% of the state's population lives in the coastal zone.³³⁵ Further, air quality will deteriorate due to rising temperatures, as ground-level ozone and particulate matter concentrations rise. Ozone and particulate matter are associated with a wide range of harmful

³³⁰ S. Liu, Valuing New Jersey's ecosystem services and natural capital: A spatially explicit benefit transfer approach, 45 Envtl. Mgmt. 1271 (2010) (adjusted for inflation).

³³¹ State of New Jersey Climate Change Resilience Strategy at 88.

³³² See generally New Jersey Human Health Addendum.

³³³ Id. at 4.

³³⁴ Id. at 6–8.

³³⁵ State of New Jersey Climate Change Resilience Strategy at 98.

health effects in humans, including cardiovascular disease, cancer, COPD, and asthma.³³⁶ New Jersey residents already suffer from excessive ozone levels, with much of northern New Jersey in non-attainment of 2008 ozone standards due in part to interstate emissions from upwind states.³³⁷ Climate change will exacerbate health risks associated with ozone pollution for many New Jerseyans. In particular, vulnerable populations such as the disabled, the elderly, those with prior health issues, children, people who live alone, people of color, and less-resourced communities are more likely to suffer health effects from higher air temperatures, flooding, and air pollution.³³⁸ As pest seasons and ranges expand, vector-borne illnesses will increase in New Jersey's population. The State has borne and will continue to bear costs associated with mitigating and responding to these public health threats.

231. The State has already incurred damages as a direct and proximate result of Defendants' conduct. The State has planned and is planning, at significant expense, adaptation and mitigation strategies to address climate change-related impacts in order to preemptively mitigate and/or prevent injuries to itself and its citizens. These efforts include, but are not limited to, partnership initiatives to guide and fund local climate resilience plans across New Jersey, particularly in the coastal zone;³³⁹ allocating funds to the Blue Acres program to buy out homes built on vulnerable floodplains and restore those floodplain ecosystems;³⁴⁰ developing a risk communication campaign to educate New Jersey residents about the dangers of climate change;³⁴¹

³³⁶ 2020 New Jersey Scientific Report on Climate Change at x.

³³⁷ U.S. Env'tl. Prot. Agency, New Jersey 8-Hour Ozone Nonattainment Areas (2008 Standard) (Sept. 30, 2022), https://www3.epa.gov/airquality/greenbook/map/nj8_2008.pdf.

³³⁸ New Jersey Human Health Addendum at 40–41.

³³⁹ State of New Jersey Climate Change Resilience Strategy at 18.

³⁴⁰ Id. at 34.

³⁴¹ Id. at 53.

and introducing sweeping regulatory reforms, branded as Protecting Against Climate Threats (PACT), to empower state agencies to mitigate and adapt to the consequences of climate change.³⁴²

232. New Jersey has already spent billions of dollars to mitigate and adapt to climate change. The State has incurred approximately \$2.5 billion in costs to construct 21 existing and planned coastal and flood protection projects, including the Greenbrook Flood Control Project, Rebuild by Design Hudson River, and shore protection projects in the Meadowlands. Additionally, the Department of Community Affairs has allocated over \$19 million to local resilience planning efforts since Superstorm Sandy. The State has also spent a total of \$1.2 billion rebuilding the barrier island beach and dune system to protect its coastal communities from rising seas and extreme weather.³⁴³ Since 2018, almost all \$25 million from the State's yearly Shore Protection Fund appropriation has been allocated to the State's cost-share responsibility for coastal resilience projects administered by the U.S. Army Corps of Engineers.³⁴⁴ Through its Blue Acres program, New Jersey has spent more than \$203 million to buy out 802 homes located in flood-prone areas to increase flood mitigation and protect vulnerable communities. New Jersey's expenditures on climate mitigation and adaptation are only beginning and are expected to increase with each passing year. In April 2022, the State allocated \$21 million to climate change-related projects, including providing grants to restore wetlands, sea grass beds, and forests in Jersey City.³⁴⁵

³⁴² Id. at 21–22.

³⁴³ Id. at 95–96.

³⁴⁴ Ibid.

³⁴⁵ Wayne Perry, New Jersey Spending \$21M on Projects to Fight Climate Change, The Associated Press (April 21, 2022), <https://apnews.com/article/climate-technology-environment-electric-vehicles-jersey-city-e0be0db62edd3fdf0304350a009dc0d4>.

233. Defendants’ tortious and deceptive conduct was a substantial factor in bringing these and other climate related injuries suffered by the State, including harms to its infrastructure, environment, socioeconomic condition, and public health—than it has endured, and foreseeably will endure, due to the climate crisis. The brunt of these injuries and harms will fall on Overburdened Communities, as climate change exacerbates existing public health and environmental disparities.³⁴⁶

234. Defendants’ tortious and deceptive conduct as described herein is therefore an actual, direct, and proximate substantial-factor cause of the State’s climate crisis-related injuries and was necessary to those injuries and brought about or helped to bring about those injuries.

V. CAUSES OF ACTION

FIRST CAUSE OF ACTION (Failure to Warn) (Against All Fossil Fuel Defendants)

235. Plaintiffs reallege each and every allegation contained above, as though set forth herein in full.

236. Under New Jersey law, Fossil Fuel Defendants each had a duty to adequately warn consumers, the public, and the State of the reasonably foreseeable or knowable risks posed by their fossil fuel products.

237. Fossil Fuel Defendants produced, marketed, distributed, and/or sold fossil fuel products at all relevant times.

238. At all relevant times, the State purchased fossil fuels for its operations, including fueling state vehicles.

³⁴⁶ See New Jersey Human Health Addendum at 40–41.

239. Fossil Fuel Defendants knew or should have known—based on information passed to them from their internal research divisions and affiliates, from trade associations and industry groups, and from the international scientific community—of the dangers from climate change, which is inherently caused by the normal use and operation of their fossil fuel products. Climate change results in harms, including but not limited to: global and local sea-level rise, more frequent and extreme drought, more frequent and extreme precipitation events, increased frequency and severity of heat waves and extreme temperatures, other adverse environmental changes, and the associated consequences of those physical and environmental changes in New Jersey and elsewhere, with compounding effects in Overburdened Communities.

240. Fossil Fuel Defendants also knew or should have known—based on information passed to them from their internal research divisions and affiliates, from trade associations and industry groups, and from the international scientific community—that the climate effects described herein rendered their fossil fuel products dangerous when used as intended or in a reasonably foreseeable manner.

241. Given the grave dangers presented by the climate effects that inevitably flow from the normal and foreseeable use of fossil fuel products, a reasonable manufacturer, seller, or other entity responsible for introducing fossil fuel products into the stream of commerce would have warned of those known, inevitable climate effects.

242. At all relevant times, however, Fossil Fuel Defendants breached their duty of care by failing to adequately warn any consumers—including, but not limited to, the State and its residents—of the harmful climate effects that inevitably flow from the intended and foreseeable use of their fossil fuel products.

243. In fact, far from warning about the climate impacts of their products, Fossil Fuel Defendants—individually and in concert—engaged in widespread, sophisticated advertising and media campaigns to disseminate false and misleading information about the climate impacts of their fossil fuel products and to mislead consumers and the public about the existence, causes, and consequences of climate change. These and other efforts to conceal and misrepresent the climate risks of fossil fuels prevented reasonable consumers—including, but not limited to, the State and its residents—from fully recognizing the climate dangers posed by fossil fuel products, thereby undermining and rendering ineffective any warnings that Fossil Fuel Defendants may have also disseminated.

244. To this day, Fossil Fuel Defendants fail to adequately warn of the climate impacts of their fossil fuel products, and they continue to spread false and misleading information about climate change, the role of their fossil fuel products and their businesses in driving climate change, and their investments in low-emission energy resources.

245. Throughout the time periods at issue, the full extent of the risks posed by the use of Fossil Fuel Defendants' fossil fuel products was not obvious or generally known and recognized, and users of fossil fuel products did not have actual knowledge of the full extent of the danger, because (among other reasons) Fossil Fuel Defendants actively sought to conceal those risks by disseminating false and misleading information about the climate impacts of fossil fuel products, both inside and outside of New Jersey.

246. Fossil Fuel Defendants knew or should have known that consumers—including but not limited to the State and its residents—were not aware of the risks posed by the use of Fossil Fuel Defendants' fossil fuel products because, among other reasons, Fossil Fuel Defendants

actively sought to conceal those risks by disseminating false and misleading information about the climate impacts of fossil fuel products, both inside and outside of New Jersey.

247. Fossil Fuel Defendants' failure to adequately warn of their products' climate impacts was a substantial factor in bringing about the State's injuries alleged herein. If Fossil Fuel Defendants had provided adequate warnings starting when they knew or should have known of the climate dangers posed by their fossil fuel products, total fossil fuel consumption would have been substantially less, resulting in less climate change and less severe climate impacts in New Jersey and elsewhere. Instead, Fossil Fuel Defendants chose to hyper-inflate fossil fuel consumption by failing to adequately warn of the climate impacts of fossil fuel products, by intentionally discrediting the science of climate change, by disseminating false and misleading information about the causes and effects of climate change, and by aggressively promoting fossil fuel products for uses that they knew would cause widespread climate-related harms in New Jersey and elsewhere. Further, Fossil Fuel Defendants' failure to provide adequate warnings about the climatic consequences of burning fossil fuels delayed the emergence of viable clean energy alternatives by preventing consumers, including in New Jersey, from having access to full and accurate information material to their energy purchasing decisions. This delayed transition to a lower-carbon economy caused the emission of huge amounts of avoidable greenhouse gases into the atmosphere, ensuring that the damage caused by climate change will be substantially more severe than if Defendants had issued warnings commensurate with their internal knowledge of climate risks. As a direct and proximate result of this tortious and deceptive conduct, the State has sustained and will sustain substantial expenses and damages as set forth in this Complaint, including damage to publicly owned infrastructure and real property, and injuries to public resources that interfere with the rights of the State and its residents.

248. Fossil Fuel Defendants' acts and omissions as alleged herein are indivisible causes of the State's injuries and damage as alleged herein, because, inter alia, it is not possible to determine the source of any particular individual greenhouse gas molecule in the atmosphere attributable to anthropogenic sources, because such greenhouse gas molecules do not bear markers that permit tracing them to their source, and because greenhouse gases quickly diffuse and comeingle in the atmosphere.

249. Plaintiffs seek damages, including compensatory and natural resource damages, in an amount to be determined at trial. Plaintiffs pursue these remedies in the State's sovereign, parens patriae, and proprietary capacity for the benefit of the general public. Plaintiffs also request an award of punitive damages, in an amount to be determined by the trier of fact, because Fossil Fuel Defendants' wrongful conduct, as set forth in this Complaint, exhibited a wanton or willful disregard for the rights of the State and its residents, and was committed with actual malice.

SECOND CAUSE OF ACTION
(Negligence)
(Against All Defendants)

250. Plaintiffs reallege each and every allegation contained above, as though set forth herein in full.

251. Under New Jersey law, each Fossil Fuel Defendant has a duty to exercise reasonable care in manufacturing, marketing, promoting, distributing, and selling fossil fuel products that inevitably cause harm to the State. All Defendants have a duty to exercise reasonable care in the production and dissemination of information regarding the climate impacts of fossil fuel products to users of those products and to the public.

252. For decades, Defendants knew or should have known—based on information passed to them from their internal research divisions and affiliates, from trade associations and industry groups, and from the international scientific community—of the foreseeable harms arising

from climate change, which is inherently caused by the normal use and operation of fossil fuel products. Climate change results in harms, including but not limited to: global and local sea-level rise, more frequent and extreme drought, more frequent and extreme precipitation events, increased frequency and severity of heat waves and extreme temperatures, other adverse environmental changes, and the associated consequences of those physical and environmental changes in New Jersey and elsewhere, with compounding effects in Overburdened Communities.

253. For decades, Defendants knew or should have known—based on information passed to them from their internal research divisions and affiliates, from trade associations and industry groups, and from the international scientific community—that unrestrained consumption of fossil fuels would lead to climate catastrophe and cause billions of dollars of physical, economic, and ecological harm to New Jersey and other coastal localities like it.

254. Defendants knew or should have known that the widespread dissemination of false and misleading information about the science of climate change, the climate impacts of fossil fuels, and the causes and effects of climate change would artificially inflate overall consumption of fossil fuels, thereby accelerating climate change and exacerbating the local impacts of climate change in New Jersey and around the world.

255. Defendants also knew or should have known that the climate change impacts alleged herein could have been reduced or avoided if leading members of the fossil fuel industry—such as Defendants—had shared with consumers and the public their own superior knowledge concerning the climate impacts of fossil fuel products.

256. Nevertheless, Defendants intentionally engaged in a decades-long campaign to undermine the science of climate change, discredit climate researchers, and conceal the existence, causes, and consequences of climate change from public awareness; knowingly failed to warn

consumers, the public, and the State about the climate impacts of fossil fuel consumption; and aggressively promoted fossil fuel consumption to levels that Defendants knew would create a climate crisis in New Jersey and elsewhere, with disproportionate impacts on Overburdened Communities, children, the elderly, and other vulnerable populations.

257. Through this wrongful conduct, which continues to this day, Defendants breached—and continue to breach—their duty of care to the State because, inter alia:

a. It was foreseeable—and foreseen by Defendants—that unrestrained fossil fuel consumption would result in harmful climate impacts in coastal states, like New Jersey;

b. It was foreseeable—and foreseen by Defendants—that the fossil fuel industry could maintain or increase total fossil fuel consumption by manufacturing doubt about the existence of climate change, by flooding the marketplace with debunked scientific theories of climate change, by concealing the role of fossil fuels in driving the climate crisis, and by downplaying the risks of climate change to the planet and its communities;

c. As compared to ordinary consumers, the public, and the State, Defendants had superior knowledge of the harmful risks posed by fossil fuel products at all times relevant to this Complaint;

d. Defendants had the opportunity and ability to avoid or mitigate those risks by, inter alia, adequately warning of the climate impacts of fossil fuel consumption and by stopping their campaigns of climate disinformation;

e. Knowing full well the harms that would inevitably result from their deceptive and tortious commercial conduct, Defendants took affirmative steps to protect their own assets and infrastructure from the ravages of climate change and to exploit new profit opportunities that would come with a warming world;

f. For multiple decades, Defendants have profited immensely from their failure to warn and deception, which has maintained and increased fossil fuel consumption;

g. There is no public interest in allowing Defendants to intentionally and knowingly spread false and misleading information about the dangers of fossil fuels or the existence, causes, and consequences of climate change;

h. There is no social value in allowing Defendants to use deceptive business practices to artificially inflate the market for fossil fuel products;

i. Fairness demands that Defendants should bear the costs of their failure to warn and of their deceptive promotion, not the State and its taxpayers.

258. Defendants' ongoing breach of their duty of care was a substantial factor in bringing about widespread and significant injuries to the State by inflating fossil fuel consumption, which in turn increased greenhouse gas pollution, accelerated climate change, and exacerbated deadly climate change impacts in New Jersey that have damaged land, buildings, infrastructure, natural resources, communities—in particular, Overburdened Communities—and the economy. Further, Defendants' breach of their duty of care delayed the emergence of viable clean energy alternatives by preventing consumers, including in New Jersey, from having access to full and accurate information material to their energy purchasing decisions. This delayed transition to a lower-carbon economy caused the emission of huge amounts of avoidable greenhouse gases into the atmosphere, ensuring that the damage caused by climate change will be substantially more severe than if Defendants' actions had conformed to their duty of care.

259. Plaintiffs seek damages, including compensatory and natural resource damages, in an amount to be determined at trial. Plaintiffs pursue these remedies in the State's sovereign, proprietary, and parens patriae capacity for the benefit of the general public. Plaintiffs also request

an award of punitive damages, in an amount to be determined by the trier of fact, because Defendants' wrongful conduct, as set forth in this Complaint, exhibited a wanton or willful disregard for the rights of the State and its residents, and was committed with actual malice.

**THIRD CAUSE OF ACTION
(Impairment of the Public Trust)
(Against All Defendants)**

260. Plaintiffs reallege each and every allegation contained above, as though set forth herein in full.

261. Under New Jersey's centuries-old public trust doctrine, the State has the authority and the duty to protect natural resources held by the State in the public trust for its people.

262. As the common law has long recognized and the Legislature has repeatedly reaffirmed, the State's public-trust duties broadly extend to all air, land, waterways, bays, beaches, wetlands, flora, fauna, and other natural resources in New Jersey that are owned, managed, administered, or otherwise controlled by the State.

263. This includes, inter alia, all riparian lands and submerged lands within the State of New Jersey, as well as many dry sand beaches, which must be administered by the State in the public interest pursuant to the public trust doctrine.

264. Through their acts and omissions, Defendants have—individually and in concert with each other—directly and proximately caused severe damage to the State's natural resources by, inter alia, intentionally, knowingly, recklessly, and negligently failing to warn of the climate impacts of fossil fuel products; discrediting climate science and climate scientists; inundating markets with false and misleading information about the existence, causes, and consequences of climate change; and aggressively promoting the unrestrained expansion of fossil fuel consumption. As alleged above, that tortious and deceptive commercial conduct has driven fossil fuel consumption—and thus greenhouse gas pollution, and thus climate change, and thus sea-level rise,

flooding, storm surges, deadly weather events, and other climate change impacts in New Jersey, which disproportionately threaten Overburdened Communities. Further, Defendants' deceptive acts and omissions delayed the emergence of viable clean energy alternatives by preventing consumers, including in New Jersey, from having access to full and accurate information material to their energy purchasing decisions. This delayed transition to a lower-carbon economy caused the emission of huge amounts of avoidable greenhouse gases into the atmosphere, ensuring that the damage caused by climate change will be substantially more severe than if Defendants had acted forthrightly, commensurate with their internal assessments of climate risk.

265. Defendants' tortious and deceptive conduct—which continues to this day—has already significantly impaired, and will continue to significantly impair, public trust resources throughout New Jersey, including but not limited to:

- a. Loss of dry coastline, riparian lands, submerged lands, beaches, and coastal wetlands, along with their associated unique ecological and recreational values, due to sea-level rise and storm surges;
- b. Impairment of coastal groundwater aquifers, surface water supplies, and estuaries due to saltwater intrusion;
- c. Reduced availability of drinking water due to increased temperatures and changing precipitation patterns;
- d. Worsened air quality, including through increased ground-level concentrations of ozone and particulate matter, and the resulting suite of serious health consequences for New Jerseyans—particularly populations already facing increased vulnerability to respiratory illnesses, including certain Overburdened Communities, children, the elderly, and those located near sources of pollution;

e. Destabilization of marine ecosystems and fisheries due to, among other things, ocean acidification and warming waters, with rippling impacts on recreational, tourism, and maritime industries; and

f. Loss of flora, fauna, and endangered species due to increased temperatures, more frequent forest fires, shrinking wetlands, more severe storms, and the spread of pests and invasive plant species.

266. Defendants' resource-impairing acts and omissions, as alleged herein, are indivisible causes of the alleged injuries and damages to the State's public trust resources because, inter alia, it is not possible to determine the source of any particular individual molecule of greenhouse gas pollution in the atmosphere attributable to anthropogenic sources because such greenhouse gas molecules do not bear markers that permit tracing them to their source, and because greenhouse gases quickly diffuse and coningle in the atmosphere.

267. Plaintiffs seek compensatory and natural resource damages in an amount to be determined at trial. Plaintiffs pursue these remedies in the State's sovereign, proprietary, and parens patriae capacity for the benefit of the general public. Plaintiffs also request an award of punitive damages, in an amount to be determined by the trier of fact, because Defendants' wrongful conduct, as set forth in this Complaint, exhibited a wanton or willful disregard for the rights of the State and its residents, and was committed with actual malice. The State's lawsuit is exempt from the Comparative Negligence Act because the public trust doctrine is an "environmental law[]" within the meaning of N.J.S.A. 2A:15-5.4.

**FOURTH CAUSE OF ACTION
(Trespass)
(Against All Fossil Fuel Defendants)**

268. Plaintiffs reallege each and every allegation contained above, as though set forth herein in full.

269. New Jersey law prohibits Defendants from intentionally, recklessly, or negligently causing tangible matter to enter land, real property, and natural resources over which the State has the right to exclusive possession, without first obtaining the State's consent.

270. The State has actual and exclusive possession of land, real property, and natural resources throughout New Jersey.

271. Fossil Fuel Defendants—individually and in concert with each other—engaged in tortious and deceptive conduct that was a substantial factor in causing flood waters, extreme precipitation, saltwater, debris, and other tangible materials to enter land, real property, and natural resources over which the State holds the right of exclusive possession. Defendant caused these trespasses by, inter alia:

a. Affirmatively and knowingly promoting the sale and use of fossil fuel products that Fossil Fuel Defendants knew to be hazardous and knew would cause or exacerbate climate change and related consequences, including, but not limited to, sea-level rise and extreme precipitation events.

b. Affirmatively and knowingly concealing the hazards that Fossil Fuel Defendants knew would result from the normal use of their fossil fuel products by misrepresenting and casting doubt on the integrity of scientific information related to climate change;

c. Affirmatively promoting fossil fuel products for uses that Fossil Fuel Defendants knew would be hazardous to consumers, the public, and the State;

d. Disseminating and funding the dissemination of information intended to mislead customers, consumers, and civil society regarding the risk of climate change and its consequences, which follow from the normal, intended use of fossil fuel products;

e. Intentionally and misleadingly advertising many of their fossil-fuel products as clean, green, or climate friendly, while failing to disclose that these very same products are a driving cause of climate change;

f. Intentionally and misleadingly exaggerating their business's investments in low-emission resources, while failing to disclose that those investments actually comprise a miniscule percentage of Fossil-Fuel Defendants' total business and that Fossil-Fuel Defendants are actually ramping up their fossil fuel extraction, production, and sales;

g. Delaying the emergence of viable clean energy alternatives by preventing consumers, including in New Jersey, from having access to full and accurate information material to their energy purchasing decisions, thereby causing the emission of huge amounts of avoidable greenhouse gases into the atmosphere; and

h. Failing to warn the public about the hazards associated with the use of fossil fuel products.

272. At all relevant times, Fossil Fuel Defendants performed this tortious and deceptive conduct in locations within the control of Fossil Fuel Defendants, including at their corporate headquarters and offices, and at advertising agencies, consulting firms, and similar agents and employees of Fossil Fuel Defendants.

273. At all relevant times, moreover, Fossil Fuel Defendants controlled every step of the fossil fuel product supply chain—from the extraction of raw fossil fuel products, to the refining

and marketing of those products, to the placement of those products into the stream of commerce, to the ultimate sale of those products to end users, including in New Jersey.

274. Fossil Fuel Defendants' trespass-causing conduct continues to this day, including through greenwashing campaigns that falsely and misleadingly portray Fossil Fuel Defendants as leaders in the fight against climate change.

275. Fossil Fuel Defendants intentionally, recklessly, and negligently engaged in—and continue to engage in—this trespass-causing conduct, knowing with substantial certainty that this conduct would hyper-inflate fossil-fuel consumption and thereby accelerate climate change, exacerbate the impacts of climate change in New Jersey, and cause water and other tangible materials to enter the State's real property and natural resources—further impacting, among others, Overburdened Communities, who already face disproportionate harm from the impacts of climate change.

276. The State did not give Fossil Fuel Defendants permission to cause floodwaters, extreme precipitation, saltwater encroachment, and other materials to enter the State's property and natural resources. Nor did the State authorize Fossil Fuel Defendants to conceal and misrepresent the climate impacts of fossil fuel products; to disseminate false and misleading information about the science, causes, and effects of climate change; to affirmatively promote fossil fuel products for uses that Fossil Fuel Defendants knew were hazardous to the planet and its people; or to engage in any of the other trespass-causing conduct alleged herein.

277. The State has been and will continue to be actually injured as a result of Fossil Fuel Defendants having caused flood waters, extreme precipitation, saltwater, and other materials to enter its real property by, inter alia, submerging real property owned by the State, causing flooding that has invaded real property owned by the State and rendered it unusable, and causing storm

surges and heightened waves that have invaded and threatened to invade real property owned by the State, and in so doing rendering the State's property unusable.

278. The trespasses alleged herein are continuing because, inter alia:

a. Fossil Fuel Defendants have continued their campaign of climate disinformation into the present, and in doing so, continue to contribute to the ongoing and recurring trespasses of saltwater, floodwater, precipitation, and other tangible materials onto the State's lands;

b. Fossil Fuel Defendants' past tortious conduct continues to cause trespasses onto the State's land because greenhouse gas emissions can remain in the atmosphere for thousands of years;

c. The trespass is reasonably abatable through local climate adaptation measures that prevent or reduce intrusions of saltwater, floodwater, precipitation, and other tangible materials from entering the State's lands.

279. Fossil Fuel Defendants are a direct, proximate, and substantial-factor cause of unauthorized and unlawful trespasses onto the State's land, real property, and natural resources, as well as all harms flowing from those trespasses.

280. Fossil Fuel Defendants' trespass-causing acts and omissions, as alleged herein, are indivisible causes of the alleged injuries and damages to the State's property because, inter alia, it is not possible to determine the source of any particular individual molecule of greenhouse gas pollution in the atmosphere attributable to anthropogenic sources because such greenhouse gas molecules do not bear markers that permit tracing them to their source, and because greenhouse gases quickly diffuse and comingle in the atmosphere.

281. Plaintiffs seek an order that provides for abatement of the trespasses created by Fossil Fuel Defendants, and that awards the State damages—including compensatory and natural resource damages—in an amount to be determined at trial. Plaintiffs pursue these remedies in the State’s sovereign, proprietary, and parens patriae capacity for the benefit of the general public. Plaintiffs also request an award of punitive damages in an amount to be determined by the trier of fact because Fossil Fuel Defendants’ wrongful conduct, as set forth in this Complaint, exhibited a wanton or willful disregard for the rights of the State and its residents, and was committed with actual malice.

FIFTH CAUSE OF ACTION
(Public Nuisance)
(Against All Fossil Fuel Defendants)

282. The State realleges each and every allegation contained above, as though set forth herein in full.

283. New Jersey law prohibits Fossil Fuel Defendants from participating in the creation of a public nuisance, which is defined as an unreasonable interference with public rights.

284. Through their acts and omissions, Fossil Fuel Defendants have—individually and in concert with each other—created, caused, contributed to, and assisted in creating hazardous climate-related conditions throughout New Jersey, including sea-level rise, coastal flooding, coastal erosion, inland flooding, extreme heat events, drought, and coastal storms (among others), with compounding effects in Overburdened Communities. Fossil Fuel Defendants created, caused, contributed to, and assisted in the creation of these and other climate-related hazards in New Jersey by, inter alia:

a. Affirmatively and knowingly promoting the sale and use of fossil fuel products that Fossil Fuel Defendants knew to be hazardous and knew would cause or exacerbate

climate change and related consequences, including, but not limited to, sea-level rise, drought, extreme precipitation events, and extreme heat events;

b. Affirmatively and knowingly concealing the hazards that Fossil Fuel Defendants knew would result from the normal use of their fossil fuel products by misrepresenting and casting doubt on the integrity of scientific information related to climate change;

c. Affirmatively promoting fossil fuel products for uses that Fossil Fuel Defendants knew would be hazardous to consumers, the public, and the State;

d. Disseminating and funding the dissemination of information intended to mislead customers, consumers, and civil society regarding the known and foreseeable risk of climate change and its consequences, which follow from the normal, intended use of fossil fuel products;

e. Intentionally and misleadingly advertising many of their fossil-fuel products as clean, green, or climate friendly, while failing to disclose that these very same products are a driving cause of climate change;

f. Intentionally and misleadingly exaggerating their business's investments in low-emission resources, while failing to disclose that those investments actually comprise a miniscule percentage of Fossil-Fuel Defendants' total business and that Fossil-Fuel Defendants are actually ramping up their fossil fuel extraction, production, and sales;

g. Delaying the emergence of viable clean energy alternatives by preventing consumers, including in New Jersey, from having access to full and accurate information material to their energy purchasing decisions, thereby causing the emission of huge amounts of avoidable greenhouse gases into the atmosphere; and

h. Failing to warn the public about the hazards associated with the use of fossil fuel products.

285. At all relevant times, Fossil Fuel Defendants performed this tortious and deceptive conduct in locations within the control of Fossil Fuel Defendants, including at their corporate headquarters and offices, and at advertising agencies, consulting firms, and similar agents and employees of Fossil Fuel Defendants.

286. At all relevant times, moreover, Fossil Fuel Defendants controlled every step of the fossil fuel product supply chain—from the extraction of raw fossil fuel products, to the refining and marketing of those products, to the placement of those products into the stream of commerce, to the ultimate sale of those products to end users, including in New Jersey.

287. Defendants' nuisance-creating conduct continues to this day, including through greenwashing campaigns that falsely and misleadingly portray Fossil Fuel Defendants as leaders in the fight against climate change.

288. The hazardous conditions in New Jersey that were caused, contributed to, and created by Defendants have substantially and unreasonably interfered with rights general to the public, including the public health, the public safety, the public peace, the public comfort, and the public convenience. These interferences with public rights include, inter alia:

a. The destruction of billions of dollars of State- and privately-owned property due to coastal erosion, sea-level rise, and flooding precipitated or exacerbated by anthropogenic climate change;

b. The impairment of the State's natural resources due to more frequent and extreme drought, more frequent and extreme precipitation events, increased frequency and severity of heat waves and extreme temperatures, and the associated consequences of those physical and

environmental changes as described above, which disproportionately jeopardize New Jersey's Overburdened Communities;

c. The loss suffered by the State and its residents due to loss of access to and use of natural, cultural, historic, and economic resources; damage to public health, safety, and general welfare; and diversion of tax dollars away from other public services to the mitigation of and/or adaptation to climate change effects; and

d. The loss of tax revenue due to depressed property values and the slowdown of economic activity due to anthropogenic climate change.

289. The hazardous conditions in New Jersey that were caused, contributed to, and created by Fossil Fuel Defendants continue and will continue to substantially and unreasonably interfere with public rights held by the people of New Jersey.

290. At all relevant times, Fossil Fuel Defendants intentionally, recklessly, and negligently engaged in the alleged nuisance-creating conduct, knowing full well that their conduct would exacerbate climate change and contribute substantially to the creation of climate-related hazards and impacts in New Jersey and elsewhere.

291. The harms caused by Fuel Fossil Defendants' nuisance-creating conduct are extremely grave and far outweigh the social utility of that conduct because, inter alia:

a. Interference with the public's rights due to sea-level rise, more frequent and extreme drought, more frequent and extreme precipitation events, increased frequency and severity of heat waves and extreme temperatures, and the associated consequences of those physical and environmental changes as described above, is expected to become so regular and severe that it will cause material deprivation of and interference with the use and enjoyment of public and private property in the State;

b. The harm suffered by the State and its people is not mere annoyance, but rather the destruction of land, property, and infrastructure; the loss of public cultural, historic, and economic resources; the damage to the public health, safety, and general welfare; and the loss of natural resources;

c. The State's residents will ultimately bear the costs of Fossil Fuel Defendants' nuisance-creating conduct, including the costs associated with the loss of use of public and private property and infrastructure as well as the costs of recovery and rebuilding from storms, flooding, and other climate impacts; loss of cultural, historic, and economic resources along with resource restoration costs; damage to the public health, safety, and general welfare; costs of implementing climate adaptation and resilience measures, including relocating residents from flood-prone areas; and diversion of tax dollars away from other public services to the mitigation of and/or adaptation to climate change impacts;

d. New Jersey's land and property—which serves myriad uses including residential, infrastructural, commercial, and ecological—is not suited to regular inundation, flooding, landslides, or other physical or environmental consequences of anthropogenic climate change;

e. There is no social utility to misleading consumers and the public about the science, causes, and impacts of climate change; to concealing and misrepresenting the climate change impacts of fossil fuels; or to greenwashing Fossil Fuel Defendants' businesses, investments, or products;

f. Fossil Fuel Defendants intentionally disseminated false and misleading information with the goal of artificially inflating fossil fuel consumption, knowing that this conduct would exacerbate climate change, including climate change impacts in New Jersey;

g. It was practical for Fossil Fuel Defendants to avoid, prevent, or reduce climate change impacts in New Jersey, including by, inter alia, adequately warning of the climate impacts of fossil fuel products and refraining from disseminating false and misleading information about the science, causes, and consequences of climate change;

h. Because of their superior knowledge of fossil fuel products, Fossil Fuel Defendants were in the best position to prevent or mitigate the alleged nuisance, but they failed to do so and instead affirmatively worked to conceal the climate change impacts of fossil fuels from the public consciousness.

292. Fossil Fuel Defendants are therefore a direct, proximate, and substantial-factor cause of an unreasonable and substantial interference with common rights held by the residents of New Jersey, as well as all harms flowing from that public nuisance.

293. Fossil Fuel Defendants' nuisance-creating acts and omissions, as alleged herein, are indivisible causes of the State's alleged injuries and damages because, inter alia, it is not possible to determine the source of any particular individual molecule of greenhouse gas pollution in the atmosphere attributable to anthropogenic sources because such greenhouse gas molecules do not bear markers that permit tracing them to their source, and because greenhouse gases quickly diffuse and comingle in the atmosphere.

294. The public nuisances alleged herein are continuing because, inter alia:

a. Fossil Fuel Defendants have continued their campaign of climate disinformation into the present, and in doing so, continue to exacerbate severe climate impacts that unreasonably interfere public rights and resources in New Jersey;

b. Fossil Fuel Defendants' past tortious conduct continues to cause severe climate impacts in New Jersey because greenhouse gas emissions can remain in the atmosphere for thousands of years.

c. The public nuisance created by Fossil Fuel Defendants' tortious and deceptive conduct is reasonably abatable through local climate adaptation measures to, inter alia, fortify public infrastructure against flooding and storm surges, restore coastal wetlands and beaches, relocate structures and communities threatened by sea-level rise, and construct new drainage and stormwater treatment infrastructure.

295. Plaintiffs seek an order that provides for abatement of the public nuisance created by Fossil Fuel Defendants, and that awards the State damages—including compensatory and natural resource damages—in an amount to be determined at trial. Plaintiffs pursue these remedies in the State's sovereign and parens patriae capacity for the benefit of the general public. Plaintiffs also request an award of punitive damages in an amount to be determined by the trier of fact because Fossil Fuel Defendants' wrongful conduct, as set forth in this Complaint, exhibited a wanton or willful disregard for the rights of the State and its residents, and was committed with actual malice.

**SIXTH CAUSE OF ACTION
(Private Nuisance)
(Against All Fossil Fuel Defendants)**

296. Plaintiffs reallege each and every allegation contained above, as though set forth herein in full.

297. New Jersey law prohibits Fossil Fuel Defendants from participating in the creation of a private nuisance, which is defined as an invasion of another's interest in the private use and enjoyment of land.

298. The State owns, occupies, and manages extensive real property throughout New Jersey—property that has been and will continue to be injured by rising sea levels, higher storm surges, more frequent and extreme drought, more frequent and extreme precipitation events, increased frequency and severity of heat waves and extreme temperatures, and the associated consequences of those physical and environmental changes.

299. Through their acts and omissions, Fossil Fuel Defendants have—individually and in concert with each other—created, caused, contributed to, and assisted in creating hazardous climate-related conditions throughout New Jersey, including sea-level rise, coastal flooding, coastal erosion, inland flooding, extreme heat events, drought, and coastal storms (among others), with compounding effects in Overburdened Communities. Fossil Fuel Defendants specifically created, caused, contributed to, and assisted in the creation of these and other climate-related hazards in New Jersey by, inter alia:

a. Affirmatively and knowingly promoting the sale and use of fossil fuel products that Fossil Fuel Defendants knew to be hazardous and knew would cause or exacerbate climate change and related consequences, including, but not limited to, sea-level rise, drought, extreme precipitation events, and extreme heat events;

b. Affirmatively and knowingly concealing the hazards that Fossil Fuel Defendants knew would result from the normal use of their fossil fuel products by misrepresenting and casting doubt on the integrity of scientific information related to climate change;

c. Affirmatively promoting fossil fuel products for uses that Fossil Fuel Defendants knew would be hazardous to consumers, the public, and the State;

d. Disseminating and funding the dissemination of information intended to mislead customers, consumers, and civil society regarding the known and foreseeable risk of

climate change and its consequences, which follow from the normal, intended use of fossil fuel products;

e. Intentionally and misleadingly advertising many of their fossil-fuel products as clean, green, or climate friendly, while failing to disclose that these very same products are a driving cause of climate change;

f. Intentionally and misleadingly exaggerating their business's investments in low-emission resources, while failing to disclose that those investments actually comprise a miniscule percentage of Fossil-Fuel Defendants' total business and that Fossil-Fuel Defendants are actually ramping up their fossil fuel extraction, production, and sales;

g. Delaying the emergence of viable clean energy alternatives by preventing consumers, including in New Jersey, from having access to full and accurate information material to their energy purchasing decisions, thereby causing the emission of huge amounts of avoidable greenhouse gases into the atmosphere; and

h. Failing to warn the public about the hazards associated with the use of fossil fuel products.

300. At all relevant times, Fossil Fuel Defendants performed this tortious and deceptive conduct in locations within the control of Fossil Fuel Defendants, including at their corporate headquarters and offices, and at advertising agencies, consulting firms, and through similar agents and employees of Fossil Fuel Defendants.

301. At all relevant times, moreover, Fossil Fuel Defendants controlled every step of the fossil fuel product supply chain—from the extraction of raw fossil fuel products, to the refining and marketing of those products, to the placement of those products into the stream of commerce, to the ultimate sale of those products to end users, including in New Jersey.

302. Defendants' nuisance-creating conduct continues to this day, including through greenwashing campaigns that falsely and misleadingly portray Fossil-Fuel Defendants as leaders in the fight against climate change.

303. The hazardous conditions in New Jersey that were caused, contributed to, and created by Defendants have substantially and unreasonably interfered with the State's use of its property for the public benefit and welfare, including by destroying or damaging millions of dollars of State-owned land, buildings, and public infrastructure due to coastal erosion, sea-level rise, and flooding precipitated or exacerbated by Fossil Fuel Defendants' tortious conduct.

304. To this day, the hazardous conditions in New Jersey that were caused, contributed to, and created by Fossil Fuel Defendants continue—and will continue—to substantially and unreasonably interfere with the State's use of its property for the public benefit and welfare.

305. At all relevant times, Fossil Fuel Defendants intentionally, recklessly, and negligently engaged in the alleged nuisance-creating conduct, knowing full well that their conduct would exacerbate climate change and contribute substantially to the creation of climate-related hazards and impacts in New Jersey and elsewhere.

306. The harms caused by Fuel Fossil Defendants' nuisance-creating conduct are extremely grave and far outweigh the social utility of that conduct because, inter alia:

a. Interference with the State's use of its land due to sea-level rise, more frequent and extreme drought, more frequent and extreme precipitation events, increased frequency and severity of heat waves and extreme temperatures, and the associated consequences of those physical and environmental changes, as described above, is expected to become so regular and severe that it will cause material deprivation of and interference with the use and enjoyment of public and private property in the State;

b. The harm suffered by the State is not mere annoyance, but rather the destruction of land, property, and infrastructure; the loss of public cultural, historic, and economic resources; the damage to the public health, safety, and general welfare, including disproportionate impacts on Overburdened Communities; and the loss of natural resources;

c. The State's residents will ultimately bear the costs of Fossil Fuel Defendants' nuisance-creating conduct, including the costs associated with the loss of public property, infrastructure, and natural resources in the State; the loss of cultural, historic, and economic resources; the damage to the public health, safety, and general welfare; and the diversion of tax dollars away from other public services to the mitigation of and/or adaptation to climate change impacts;

d. The State's land and property—which serves myriad uses including residential, infrastructural, commercial, and ecological—is not suitable for regular inundation, flooding, landslides, and/or other physical or environmental consequences of anthropogenic climate change;

e. There is no social utility to misleading consumers and the public about the science, causes, and impacts of climate change; to concealing and misrepresenting the climate change impacts of fossil fuels; or to greenwashing Fossil Fuel Defendants' businesses, investments, or products;

f. Fossil Fuel Defendants intentionally disseminated false and misleading information with the goal of artificially inflating fossil fuel consumption and the knowledge that this conduct would exacerbate climate change, including climate change impacts in New Jersey;

g. It was practical for Fossil Fuel Defendants to avoid, prevent, and reduce climate change impacts in New Jersey, including, inter alia, by adequately warning of the climate

impacts of fossil fuel products and by refraining from disseminating false and misleading information about the science, causes, and consequences of climate change;

h. Because of their superior knowledge of fossil fuel products, Fossil Fuel Defendants were in the best position to prevent or mitigate the alleged nuisance, but they failed to do so and instead affirmatively worked to conceal the climate change impacts of fossil fuels from the public consciousness.

307. Fossil Fuel Defendants are therefore a direct, proximate, and substantial-factor cause of an unreasonable and substantial interference with the State's use of its land, as well as all harms flowing from that private nuisance.

308. Fossil Fuel Defendants' nuisance-creating acts and omissions, as alleged herein, are indivisible causes of the State's alleged injuries and damages because, inter alia, it is not possible to determine the source of any particular individual molecule of greenhouse gas pollution in the atmosphere attributable to anthropogenic sources because such greenhouse gas molecules do not bear markers that permit tracing them to their source, and because greenhouse gases quickly diffuse and comeingle in the atmosphere.

309. The private nuisance alleged herein is continuing because, inter alia:

a. Defendants have continued their campaign of climate disinformation into the present, and in doing so, continue to contribute to the ongoing and recurring sea-level rise, erosion, flooding, and extreme weather events that are harming and impairing the use of the State's land, property, and infrastructure, with compounding effects in Overburdened Communities.

b. Greenhouse gas emissions can remain in the atmosphere for thousands of years, meaning that Fossil Fuel Defendants' past tortious conduct continues to contribute to

hazardous environmental conditions in New Jersey that substantially and unreasonably interfere with the State's use of its land, property, and infrastructure.

c. The private nuisance is reasonably abatable through local climate adaptation measures that mitigate the risk of flooding, erosion, and other climate-related hazards to the State's land.

310. The State did not give Fossil Fuel Defendants permission to destroy, damage, unreasonably interfere with the use of, or create hazardous environmental conditions on the State's real property. Nor did the State authorize Fossil Fuel Defendants to conceal and misrepresent the climate impacts of fossil fuel products; to disseminate false and misleading information about the science, causes, and effects of climate change; to affirmatively promote fossil fuel products for uses that Fossil Fuel Defendants knew were hazardous to the planet and its people; or to engage in any of the other nuisance-causing conduct alleged herein.

311. Plaintiffs seek an order that provides for abatement of the private nuisance created by Fossil Fuel Defendants, and that awards the State damages—including compensatory and natural resource damages—in an amount to be determined at trial. Plaintiffs pursue these remedies in the State's sovereign, proprietary, and parens patriae capacity for the benefit of the general public. Plaintiffs also request an award of punitive damages in an amount to be determined by the trier of fact because Fossil Fuel Defendants' wrongful conduct, as set forth in this Complaint, exhibited a wanton or willful disregard for the rights of the State and its residents, and was committed with actual malice.

SEVENTH CAUSE OF ACTION
(Violations of New Jersey’s Consumer Fraud Act, N.J.S.A. 56:8-1 to -227)
(Unconscionable Commercial Practices and Deception)
(Against All Defendants)

312. Plaintiffs reallege each and every allegation contained above, as though set forth herein in full.

313. The New Jersey Consumer Fraud Act (“CFA”) prohibits the “act, use or employment by any person of any commercial practice that is unconscionable or abusive, deception, fraud, false pretense, false promise, misrepresentation, or the knowing, concealment, suppression, or omission of any material fact with intent that others rely upon such concealment, suppression, or omission, in connection with the sale or advertisement of any merchandise.” N.J.S.A. 56:8-2.

314. The CFA defines “merchandise” as including “any objects, wares, goods, commodities, services or anything offered, directly or indirectly to the public for sale.” N.J.S.A. 56:8-1(c). Fossil fuel products are “merchandise” within the meaning of the CFA.

315. The CFA defines “person” as “any natural person or his legal representative, partnership, corporation, company, trust, business entity or association, and any agent, employee, salesman, partner, officer, director, member, stockholder, associate, trustee or cestuis que trustent thereof.” N.J.S.A. 56:8-1(d). All Defendants are “persons” within the meaning of the CFA.

316. The CFA defines “sale” as including “any sale, rental or distribution, offer for sale, rental or distribution or attempt directly or indirectly to sell, rent or distribute.” N.J.S.A. 56:8-1(e). Fossil Fuel Defendants have sold, distributed, offered for sale, and attempted to directly or indirectly sell and distribute fossil fuel products in New Jersey.

317. The CFA defines “advertisement” as including “the attempt directly or indirectly by publication, dissemination, solicitation, indorsement or circulation or in any other way to induce

directly or indirectly any person to enter or not enter into any obligation or acquire any title or interest in any merchandise or to increase the consumption thereof or to make any loan.” N.J.S.A. 56:8-1(a). All Defendants have advertised fossil fuel products in New Jersey, including by attempting directly or indirectly to induce the purchase and increase the consumption of fossil fuels in New Jersey through the publication, dissemination, solicitation, endorsement, and/or circulation of promotional materials.

318. The CFA makes it unlawful for a business to engage in any unconscionable commercial practice in connection with the sale or advertisement of fossil fuel products. N.J.S.A. 56:8-2.

319. More than half a century ago, Defendants knew of the climate impacts of fossil fuel products and knew that unrestrained fossil fuel consumption would lead to catastrophic climate change, resulting in sea-level rise, changing precipitation patterns, more frequent heat waves, more extreme weather events, more severe flooding, and a host of other climate impacts that would wreak havoc on the State and others like it, with compounding effects on Overburdened Communities. Despite this sophisticated knowledge of the existence, causes, and effects of climate change, Defendants chose to engage in unconscionable and deceptive commercial practices intended to preserve their profits and hyper-inflate the market for fossil fuel energy.

320. Defendants violated N.J.S.A. 56:8-2 by engaging in the following unconscionable commercial practices and acts of deception:

a. Conceiving, organizing, and implementing a decades-long public relations campaign to misrepresent the weight of climate science and to discredit scientists seeking to warn the public about the hazardous climatic effects of consuming fossil fuel products;

b. Taking affirmative steps to protect their fossil fuel infrastructure and assets from threats posed by climate change, while denying publicly the scientific basis for implementing climate mitigation or adaptation measures;

c. Funding front groups, fake grassroots organizations, think tanks, and industry-aligned scientists to obscure the climate science consensus—i.e., that climate change is real, severe, and caused primarily by burning fossil fuels—from consumers and the public.

d. Portraying Fossil Fuel Defendants as substantially invested in non-fossil fuel energy sources while failing to disclose that those investments represent a negligible percentage of Fossil Fuel Defendants' investment portfolios and that Fossil Fuel Defendants are ramping up fossil fuel production and sale; and

e. Touting certain fossil fuel products as climate-friendly while failing to disclose that those same products are primary drivers of climate change.

321. These acts or practices are unconscionable and unfair in that they violate notions of good faith, honesty in fact, and observance of fair dealing; they have the capacity to mislead, and have misled, reasonable consumers and members of the public; and they offend public policy reflected in the CFA, which protects consumers and competitors from deceptive marketing to ensure an honest marketplace.

322. These acts or practices are unconscionable because they unethically deprive consumers of material facts they need to make informed decisions about where, how, and how much fossil fuel products to purchase. Consumers who are accurately apprised of the hazards associated with consuming a product frequently change their purchasing habits to buy alternative products that do not pose the same risks or choose to buy less of a risky product.

323. Each unconscionable commercial practice and act of deception by Defendants constitutes a separate violation of the CFA, N.J.S.A. 56:8-2.

324. Plaintiffs request an order that (i) permanently enjoins Defendants from engaging in the unlawful practices described in this Complaint, (ii) assesses maximum statutory civil penalties for each violation of the CFA, (iii) awards the costs of the suit, including attorneys' fees, and (iv) directs disgorgement of profits unlawfully acquired or retained, as authorized by N.J.S.A. 56:8-8.

EIGHTH CAUSE OF ACTION
(Violations of New Jersey's Consumer Fraud Act, N.J.S.A 56:8-1 to -227)
(Misrepresentations and Omissions of Material Facts)
(Against All Defendants)

325. Plaintiffs reallege each and every allegation contained above, as though set forth herein in full.

326. At all times relevant to this Complaint, Defendants violated N.J.S.A. 56:8-2 by making numerous misrepresentations. Defendants' violations include but are not limited to the following:

a. Misrepresenting the climate science consensus—i.e., that climate change is real, severe, and primarily caused by burning fossil fuels—to consumers and the public, including through advertisements; paid editorials; op-eds; publicly-distributed books, reports, and pamphlets; and press releases;

b. Attempting to discredit scientists warning of the climatic consequences of burning fossil fuels via false or misleading claims of bias;

c. Misrepresenting the causal connection between fossil fuel consumption and climate change, in direct contradiction of Defendants' own internal knowledge;

d. Falsely or misleadingly downplaying the likelihood and magnitude of climate change impacts;

e. Failing to correct prior misrepresentations and omissions about the climatic risks of burning fossil fuels;

f. Misrepresenting the environmental and climate benefits of certain fossil fuel products, including fuel additives; and

g. Misleadingly portraying Fossil Fuel Defendants as substantially invested in non-fossil fuel energy sources.

327. Defendants' misrepresentations regarding the state of climate science and the effects of climate change were not supported by or were contrary to substantial scientific evidence, as evidenced by the contradiction between Defendants' public statements and the internal conclusions reached by Defendants' own scientists, as well as the inconsistency between Defendants' representations and the IPCC's successive assessment reports describing the climate science consensus.

328. At all times relevant to this Complaint, Defendants violated N.J.S.A. 56:8-2 by knowingly concealing, suppressing, or omitting material facts with the intent that consumers and others rely upon those concealments, suppressions, or omissions. Defendants' violations include but are not limited to the following:

a. Omitting or concealing material facts known to Defendants since the 1960s about the climatic hazards of consuming their fossil fuel products;

b. Omitting or concealing Defendants' own internal research predicting the harmful effects of unrestrained fossil fuel consumption on the climate, the environment, and communities around the world, including in New Jersey;

c. Omitting or concealing the central role Defendants played in funding, organizing, and executing climate denialist campaigns;

d. Omitting or concealing information regarding the negligible percentage of Fossil Fuel Defendants' expenditures spent on clean energy, while portraying Fossil Fuel Defendants as substantially invested in non-fossil fuel energy sources;

e. Omitting or concealing information regarding Fossil Fuel Defendants' intent to ramp up fossil fuel production in the coming decades, while portraying Fossil Fuel Defendants as leaders on climate mitigation action; and

f. Omitting or concealing the climatic hazards of fuel treated with additives, while portraying additive-enhanced fossil fuels as beneficial to the climate and the environment.

329. Defendants' material omissions, which were and are false and misleading, render even seemingly truthful statements about climate change or Defendants' products false and misleading because they are incomplete. At the time they made or disseminated false or misleading statements, or caused false or misleading statements to be made or disseminated, Defendants knowingly failed to include material facts about the risks of fossil fuel consumption—particularly with respect to unrestrained, long-term use—and Defendants intended that recipients of its sophisticated public relations campaign would rely on those misrepresentations and omissions when making energy purchasing decisions.

330. To this day, Defendants continue to make—or cause to be made—false and misleading statements and omissions about the climate impacts of fossil fuel products and businesses in advertisements and promotional materials that are directed at or disseminated to consumers in New Jersey.

332. Defendants' affirmative misrepresentations and material omissions had the capacity to mislead New Jersey consumers about material facts concerning fossil fuel products, including those products' hazardous impacts on the property, health, safety, economic wellbeing, and shared natural resources of New Jerseyans. Each misrepresentation and knowing omission by Defendants constitutes a separate violation of the CFA, N.J.S.A. 56:8-2.

333. Plaintiffs request an order that (i) permanently enjoins Defendants from engaging in the unlawful practices described in this Complaint, (ii) assesses maximum statutory civil penalties for each violation of the CFA, (iii) awards the costs of the suit, including attorneys' fees, and (iv) directs disgorgement of profits unlawfully acquired or retained, as authorized by N.J.S.A. 56:8-8.

VI. PRAYER FOR RELIEF

Wherefore, Plaintiffs request that this Court enter judgment against Defendants:

1. Awarding compensatory damages, jointly and severally, in an amount according to proof;
2. Awarding natural resource damages, jointly and severally, in an amount according to proof;
3. Awarding punitive damages in an amount according to proof;
4. Awarding costs and fees in this action, including attorneys' fees, together with prejudgment interest, to the full extent permitted by law, including as authorized by the CFA, N.J.S.A. 56:8-11, -19;
5. Compelling Defendants to abate the ongoing nuisance their deceptive and tortious conduct has created in New Jersey, and to pay the costs of such abatement, including, inter alia, costs of fortifying public infrastructure from storm damage, natural resource restoration, funding

local climate resilience measures, and rebuilding natural barriers to protect communities from sea-level rise and climate-influenced storms;

6. Compelling Defendants to abate the ongoing trespass their deceptive and tortious conduct has caused to the State's lands and property, and to pay the costs of such abatement;

7. Finding that the acts and practices of Defendants, as described in the Complaint, constitute multiple instances of unlawful practices in violation of the CFA, N.J.S.A. 56:8-1 to -227;

8. Permanently enjoining Defendants from engaging in the unlawful practices that are described in the Complaint and that violate the CFA, as authorized by the CFA, N.J.S.A. 56:8-8;

9. Directing Defendants to pay the maximum statutory civil penalties for each violation of the CFA, in accordance with N.J.S.A. 56:8-13;

10. Directing Defendants to disgorge all profits unlawfully acquired or retained, as authorized by the CFA, N.J.S.A. 56:8-8;

11. Awarding such other relief as this Court deems proper.

VII. REQUEST FOR JURY TRIAL

Plaintiffs respectfully request that all issues presented by the above Complaint be tried by a jury, with the exception of those issues that, by law, must be tried before the Court.

Dated: October 18, 2022

MATTHEW J. PLATKIN
ATTORNEY GENERAL OF NEW JERSEY
Attorney for Plaintiffs



By: _____
Andrew Reese (024662000)
Monisha A. Kumar (900212012)
Daniel P. Resler (324172020)
Monica E. Finke (332512020)
Deputy Attorneys General
Richard J. Hughes Justice Complex
25 Market St., P.O. Box 093
Trenton, New Jersey 08625-0093
Tel: (609) 376-2789
Email: Andrew.Reese@law.njoag.gov
Monisha.Kumar@law.njoag.gov
Daniel.Resler@law.njoag.gov
Monica.Finke@law.njoag.gov

SHER EDLING LLP
Special Counsel to the Attorney General
Victor M. Sher (*pro hac vice forthcoming*)
Matthew K. Edling (*pro hac vice forthcoming*)
Katie H. Jones (*pro hac vice forthcoming*)
Quentin C. Karpilow (*pro hac vice forthcoming*)
Paul Stephan (275272018)
Naomi D. Wheeler (*pro hac vice forthcoming*)
100 Montgomery Street, Suite 1410
San Francisco, CA 94104
(628) 231-2500
Email: vic@sheredling.com
matt@sheredling.com
katie@sheredling.com
quentin@sheredling.com
paul@sheredling.com
naomi@sheredling.com

CERTIFICATION PURSUANT TO R. 4:5-1

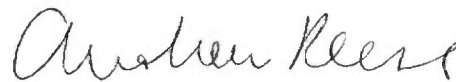
I hereby certify that, to the best of my knowledge and belief, the matter in controversy is not the subject of any other action pending in any court or of any pending arbitration proceedings. No other action or arbitration proceeding is contemplated at this time. I know of no other parties who should be joined in this action at this time.

DESIGNATION OF TRIAL COUNSEL

Pursuant to R. 4:25-4, Plaintiffs designate Deputy Attorneys General Andrew Reese, Monisha A. Kumar, Daniel P. Resler, and Monica E. Finke as trial counsel in this matter.

Dated: October 18, 2022

MATTHEW J. PLATKIN
ATTORNEY GENERAL OF NEW JERSEY
Attorney for Plaintiffs



By: _____
Andrew Reese (024662000)
Monisha A. Kumar (900212012)
Daniel P. Resler (324172020)
Monica E. Finke (332512020)
Deputy Attorneys General
Richard J. Hughes Justice Complex
25 Market St., P.O. Box 093
Trenton, New Jersey 08625-0093
Tel: (609) 376-2789
Email: Andrew.Reese@law.njoag.gov
Monisha.Kumar@law.njoag.gov
Daniel.Resler@law.njoag.gov
Monica.Finke@law.njoag.gov

SHER EDLING LLP
Special Counsel to the Attorney General
Victor M. Sher (*pro hac vice forthcoming*)
Matthew K. Edling (*pro hac vice forthcoming*)
Katie H. Jones (*pro hac vice forthcoming*)

Quentin C. Karpilow (*pro hac vice forthcoming*)
Paul Stephan (275272018)
Naomi D. Wheeler (*pro hac vice forthcoming*)
100 Montgomery Street, Suite 1410
San Francisco, CA 94104
(628) 231-2500
Email: vic@sheredling.com
matt@sheredling.com
katie@sheredling.com
quentin@sheredling.com
paul@sheredling.com
naomi@sheredling.com